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ABSTRACT

This report evaluates the Expanded Food and Nutrition Education Program (EFNEP) of the Extension Service of the Department of Agriculture. About 184,000 low-income families participated in the program prior to October 1969. A national sample of 10,500 showed that family incomes were very low--less than 2,700 dollars, of which more than a third was spent for food. Most families were urban, members of minority groups, and had homemakers with relatively low educational levels. Food consumption practices of homemakers upon entering the program indicated that many families had poor diets. After six months of EFNEP participation, substantial improvements in food knowledge and consumption practices were evident, particularly in the consumption of foods in the milk and fruit-vegetable groups. Homemakers with the poorest diets showed more improvements than those who had better initial diets. Homemakers receiving more visits from program personnel, a measure of intensity of program instruction, increased their consumption of foods in the milk and fruit-vegetable groups more than homemakers receiving fewer visits. (Author/JM)

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IMPACT OF THE EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM ON LOW-INCOME FAMILIES

AN INDEPTH ANALYSIS

UD 012472

U.S. DEPARTMENT OF AGRICULTURE • ECONOMIC RESEARCH SERVICE

ABSTRACT

About 184,000 low-income families participated in the Extension Service's Expanded Food and Nutrition Education Program (EFNEP) prior to October 1969. A national sample of 10,500 showed that family incomes were very low--less than $2,700, of which more than a third was spent for food. Families with annual incomes of less than $1,200 per year spent nearly one-half for food. Most families were urban, members of minority groups, and had homemakers with relatively low educational levels.

Food consumption practices of homemakers upon entering the program indicated that many families had poor diets. Foods in the milk and fruit/vegetable groups were most often lacking in diets. Homemakers with poorest diets tended to be urban, on welfare, poorly educated, and have low-family incomes and food expenditures.

After 6 months of EFNEP participation substantial improvements in food knowledge and consumption practices were evident, particularly in the consumption of foods in the milk and fruit/vegetable groups. Homemakers with the poorest diets showed more improvement than those who had better initial food consumption practices. Homemakers receiving more visits from program personnel, a measure of intensity of program instruction, increased their consumption of foods in the milk and fruit/vegetable groups more than homemakers receiving fewer visits.

Keywords: Low income, consumption, food, nutrition, poverty, income, expenditures.

PREFACE

This report evaluates the Expanded Food and Nutrition Education Program (EFNEP) of the Extension Service of the U.S. Department of Agriculture (USDA). Officials responsible for policy and leadership have a continuing need for information on program operations and factors associated with its effectiveness in reaching the target population and improving food consumption practices. The report measures the success of the program in teaching better nutrition and food consumption practices to families in poverty by evaluating food knowledge and consumption practices of the homemaker upon first entering the program and again after having participated for a 6-month period. Also, the study relates socioeconomic characteristics of homemakers and their families and other program variables to initial status and subsequent changes in food consumption practices.

The study was conducted by the Marketing Economics Division of the Economic Research Service in cooperation with the Extension Service. Special acknowledgment is made of the assistance provided by the Assistant Administrator, Home Economics, and other staff members of the Extension Service in planning the study and obtaining the data. Many persons in the State Cooperative Extension Service, particularly the home economists supervising sample program units, contributed by assembling and providing the data upon which the study is based. Sampling procedures were developed by the Statistical Reporting Service.

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February 1972

HIGHLIGHTS

Analysis of sample data indicates that the Extension Service's Expanded Food and Nutrition Education Program (EFNEP), implemented in 1969, has succeeded in reaching low-income families and in improving food consumption practices. Success of the EFNEP was evaluated on the basis of information from 10,500 of the 184,000 families enrolled prior to October 1969. Family homemakers whose food consumption practices were among the poorest to begin with benefited most from the program. Much credit is given to nonprofessional aides who worked directly with hard-to-reach families in poverty, convincing them of the need for improved diets and demonstrating how family income and skills could be used more effectively to achieve this goal.

Target Population Reached

Most families had low incomes, lived in urban areas, and were from minority ethnic groups. Most were black. At least 90 percent of the families in the sample were in the lowest U.S. income quartile. Average annual family incomes were less than $2,700, of which more than one-third was spent for food. Families with incomes of less than $1,200 spent nearly one-half for food.

About one-third of the families, whose average size was 4.8 persons, were on welfare. Approximately 15 percent were enrolled in USDA's food stamp program and 20 percent in the food distribution program. The $76 spent for food per family each month, not including value of bonus food stamps, foods from gardens, and foods received as gifts or under a food assistance program, was only about two-thirds of the estimated cost of USDA's economy food plan.

Initial Food Consumption Practices Poor

Each time a food was eaten by the family homemaker during a 24-hour period was counted as a serving and the number of such servings in each of the 4 major food groups was used as an operational measure of food consumption practices. The practices were evaluated by comparing the number of servings in each food group with a serving guide based on the number of servings recommended in USDA's Daily Food Guide for each food group--meat, 2 or more servings; milk, 2 or more; fruit/vegetable, 4 or more; and bread/cereal, 4 or more. More than 90 percent of the homemakers reported fewer servings than specified in the serving guide in 1 or more of the 4 food groups when they entered the program. However, nearly 60 percent consumed at least 1 serving in each of the food groups. Diets were most lacking in foods from the milk and fruit/vegetable groups.

Homemakers with more education, higher family income, and higher food expenditures generally had better diets. Also, homemakers of farm families, although reporting lower income and food expenditures, had better consumption practices than nonfarm homemakers. Homemakers not on welfare tended to have slightly better consumption practices than families on welfare. Income and actual food expenditures of families participating in the food stamp or food distribution programs were lower than those of families not participating in these programs; however, their homemakers' food consumption practices were about equal, and in some cases, better.

Improvement in Food Consumption Practices

After 6 months in the program, substantial improvement in both food knowledge and food consumption practices was evident. Homemakers that ate at least the minimum number of servings recommended in each of the food groups during a 24-hour period increased from 4 to 11 percent. Homemakers with at least 1 serving in each food group

rose from less than 60 to over 70 percent. Both the proportion of homemakers consuming the recommended number of servings as well as the average number of servings per homemaker increased for each food group. Greatest progress was shown in fruit/vegetable--the most deficient food group--and least progress in the meat group--the least deficient.

Homemakers consuming fewer servings from a food group generally showed more improvement in that group than homemakers with higher initial levels. Among homemakers grouped by socioeconomic characteristics, groups having poorer initial consumption practices often showed greater progress than those with better diets. Homemakers in all income classes showed improvement and often those with lower incomes showed the greater progress. Finally, the amount and intensity of food and nutrition education received by a homemaker--measured by number of program aide visits between food readings--had a positive effect on diet improvement, particularly in the case of milk products and fruit/vegetables.

IMPACT OF THE EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM ON LOW-INCOME FAMILIES: AN INDEPTH ANALYSIS

by

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INTRODUCTION

Although the U.S. diet is generally good, nutritional deficiencies exist within segments of the population. Deficiencies are more prevalent among families with low incomes. Concern about this problem is reflected in Government programs to provide food assistance to needy families and to help families acquire the knowledge, skills, and motivation required to improve their food consumption practices.

The Expanded Food and Nutrition Education Program (EFNEP) of USDA's Extension Service, authorized in November 1968, seeks to upgrade diets of low-income families through education. Food and nutrition education has always been a major activity of the Extension Service, but the EFNEP represents a substantial change in magnitude, orientation, and approach from past efforts. Changes include a broadened scope of food and nutrition education with special focus on hard-to-reach families in poverty, many of which are minority groups living in urban areas. Also, the Extension Service is now using paid nonprofessionals to extend the efforts of professional home economists in helping families improve their food knowledge and food consumption practices.

Subject matter covered by the program includes essentials of nutrition; meal planning; food buying, storage, preparation, and serving; sanitation practices; and related topics. Although the educational effort concentrates on food and nutrition, the program is also concerned with other conditions that may hinder improved food consumption by the family. Additionally, families are provided information on resources and Government programs in the community that may provide assistance in improving their dietary practices and living standards.

Operation and Scope

Families receive instruction in their homes or in small group meetings from nonprofessional program aides, most of whom live in the same area. The main recipient of the aide's work is the family homemaker, although other members of the family, particularly the children, often benefit. The program also teaches food and nutrition directly to youth through 4-H activities, often using volunteers.

The program was implemented by the State Cooperative Extension Service in early 1969. By October 1969, more than 184,000 families totaling 875,000 persons had participated in the program for some period of time, and 139,000 families were still being reached in 600 program units in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. 1/ Also, program personnel work with substantial numbers of nonprogram families. 2/ A program unit, supervised by a professional home economist,

1/ By August 1971, the program had reached a total of 2.9 million persons in 600,000 program families.

2/ The term "program family" is used to describe a family for whom specified socioeconomic data have been obtained. "Nonprogram families" are families who have been contacted by a program aide and may be receiving instructions but for whom the specified data had not been obtained.

generally offers assistance to families in a city or town, one or more counties, or an Indian reservation. Within States, selection of geographical areas for implementing the program generally reflected a priority to those with the highest poverty incidence.

Prior to October 1969, more than 6,500 aides were employed to work with program families. By October 1969, about 4,700 aides were working part or full time. Total time expended was equivalent to about 3,300 full-time aides working 40 hours a week.

There are no specific programwide qualifications for the position of aide. Generally, the minimum requirement is the ability to read and write, and a prime qualification is the ability to identify and communicate with low-income families. Also, aides are sought who live in the same area or neighborhood as the families they will work with. Aides generally receive an initial period of intensive instruction in food and nutrition and related subject matter. Before actually working with program families, they also receive training in techniques for working with them. Continuing training is provided on a regular basis.

Under original program funding, States were charged to direct the program to low-income families--those in greatest poverty. States established guidelines for determining eligibility requirements that reflected conditions within their jurisdiction. Individual target families in the area covered by a program unit are often identified through community and church organizations, Government agencies, community leaders, or the personal knowledge of program aides. Also, participating families identify and recruit other families. However, most families are recruited through personal home visits by the aide.

For each family entering the program, the aide completes and maintains a record containing information on the homemaker and socioeconomic characteristics of the family (appendix II). Information includes data on family size and composition, age of family members, education of homemaker, school attendance, participation in public food assistance programs, household conveniences and appliances, type of food store patronized, and family income. This basic information familiarizes the aide with the family's resources, requirements, and needs, and facilitates work with the family. The family record is updated at least yearly, or when changes are observed by the aide.

To estimate levels and changes in food knowledge and consumption practices, a "food reading" is taken by the aide on the homemaker when the family enters the program and at subsequent 6-month intervals (appendix II). These readings identify specific dietary deficiencies and guide the aide in working with the family to correct them. At each food reading, information also is obtained on the family's monthly income and food expenditures.

Aggregate Reporting and Evaluation

Although the basic purpose of maintaining individual family records is to guide the aides and program unit supervisors in meeting the specific needs of their families and in assessing achievement, they also serve as an information base for a programwide reporting system. Each program unit provides a monthly summary of the number of families in the program, the number added and leaving, the number of aides in training and working, total hours worked by aides, the number of families visited by aides, and number participating in a USDA food assistance program. 3/

3/ Information on number of youth and volunteers participating in 4-H-type activities is currently reported on a monthly basis.

Besides monthly reports, semiannual reports by all program units provide profile data on selected socioeconomic characteristics and food knowledge and consumption practices of families or their homemakers. These data are tabulated by the Extension Service to provide program unit, State, and total summaries reflecting dimensions and growth of the program; characteristics of families being reached; and distribution of family homemakers by level of food knowledge and consumption at 6-month intervals of participation in the program.

Analysis of Sample Data

Aggregate data from the programwide reporting system provides information on program dimensions and growth. A national sample was selected for detailed comparisons and analysis. Primary purposes of the study were to provide a more complete socioeconomic profile of families being reached; determine initial consumption practices, and compare food practices of selected socioeconomic groupings; and to ascertain changes in food practices after participation in the program.

Procedures

Analysis was based on a sample of individual family records and food readings. These records contained family socioeconomic characteristics at time of enrollment and information on food consumption practices of homemakers, food knowledge of homemakers, and estimates of monthly income and food expenditures.

The sample records were selected from a sample of program units that had families with two food readings by October 1969. 4/ More than 10,500 families from 134 sample units in 35 States and Puerto Rico were selected, or about 6 percent of all families enrolled prior to October 1969 (184,000). About 500 families, approximately 5 percent of the sample, were from Puerto Rico. The sample included about 2,900 families that had been in the program 6 months or more and had an initial and second food reading; and about 6,700 families that had only the initial food reading. Most of the latter mentioned had been in the program less than 6 months, but included some who left after the first food reading.

The socioeconomic profile of program families was based on 10,524 family records. Initial food consumption practices of 9,515 homemakers of sample families were used as indicators of diets at time of enrollment. Food consumption practices were evaluated in terms of percentages of the homemakers achieving specified consumption levels in the major food groups.

Some 2,843 sample homemakers had been in the program 6 months or longer and had two food readings. The initial food consumption practices of these homemakers were compared with their food consumption practices at the second food reading to determine changes in food consumption practices over the 6-month period. Both the initial food consumption practices and change in consumption practices were determined for homemakers with selected socioeconomic characteristics.

Definition of Terms

The study deals primarily with food consumption practices and knowledge of homemakers in the sample. Income and food expenditure estimates were also made for various family groupings. Terms used in this study are defined as follows:

4/ For more information on sampling procedures, see appendix I.

Program aide. Nonprofessional program personnel who teach nutrition and food practices to program families.

Food readings. Information on homemakers' food consumption practices, food knowledge, family income, and family food expenditures. The aide obtains this information from family homemaker after enrollment and at 6-month intervals thereafter.

Food consumption practices. The number of servings of food in the four major food groups consumed during a 24-hour period as determined from food readings. Measurement is in terms of the estimated number of servings of food from each of the four major food groups--milk, meat, fruit/vegetable, and bread/cereal--that the family homemaker reported eating during the 24 hours preceding the food reading. Consumption practices were evaluated by comparing the number of servings in each food group with a serving guide for each food group based on the number of servings recommended in the USDA's Daily Food Guide--2 or more milk, 2 or more meat, 4 or more fruit/vegetable, and 4 or more bread/cereal. 5/

Food servings. Each time a specific food was consumed during a 24-hour period by a homemaker was counted as one serving. The quantity consumed was not measured. However, if the amount was believed to be small, such as cream in coffee, it was not counted as a serving.

Food knowledge. An indicator of food knowledge was obtained by the aide asking the homemaker to name foods necessary for health. Foods named were classified into one of the major food groups--milk, meat, fruit/vegetable, and bread/cereal. Homemakers naming a food in a food group as being necessary for health were assumed to have knowledge of the importance of that food group being in the family diet.

Monthly income. An estimate of before-tax family income received during the month prior to date of food reading. In addition to salaries and wages, includes gifts, welfare, social security, retirement, and insurance payments. Farm income was also computed on a monthly basis by dividing income from the last year by 12. Value of bonus food stamps and donated foods were not included as income.

Monthly food expenditures. An estimate of money spent for food, including credit, during month prior to date of food reading. The estimate includes food purchased and eaten away from home, but does not include values of food from home gardens or food received as gifts or under USDA's food distribution program. In the case of participation in a food stamp program, the value of bonus food stamps was not included as a food expenditure. Also excluded were amounts spent for alcoholic beverages, tobacco, paper goods, soaps, pet foods, and other nonfood items purchased at grocery stores.

Urban household. Families living in places with at least 2,500 persons and in closely settled fringe areas surrounding cities of 50,000 or more.

Rural nonfarm household. Families living outside urban areas and not operating a farm.

Farm household. Families living outside urban areas and operating a farm.

5/ For more information on measurement of food consumption practices, see page 17.

CHARACTERISTICS OF PROGRAM FAMILIES AND AIDES

Data obtained in the study provide a basis for describing the socioeconomic characteristics of families participating in the program during its first 9 months of operation. Also, information from sample program units provides a limited profile of selected characteristics of program aides.

Families and Homemakers

The socioeconomic characteristics are representative of families in the national program, whereas family and homemaker characteristics may vary by region and State. Family incomes vary considerably in the sample, although most are low. Also, a large range of family sizes are in the sample.

Ethnic Group, Residence, Age, and Education

A substantial majority of families enrolled in the EFNEP during its first 9 months of operation were from minority ethnic groups, blacks being predominant (table 1). Approximately 52 percent of the sample families were black; 32 percent, white; 14 percent, Spanish American (includes Puerto Ricans); and 2 percent, American Indian. In 1969, blacks comprised three-tenths of all persons living below the recognized poverty level. 6/

The constituency of the program is more urban than rural. About 60 percent of the households were urban, approximately 30 percent were rural nonfarm, and less than 10 percent were rural farm. According to the Bureau of the Census, about half of the persons below the poverty level in 1969 lived in metropolitan areas and half in non-metropolitan areas. 7/

The average age of homemakers of program families was 43 years. About 30 percent were less than 30 years of age; 40 percent, between 30 and 50 years; and 30 percent, 50 years and older. Sample homemakers had relatively low educational levels; the average years of schooling was 8. Ten percent had less than 4 years of education and less than 20 percent had 12 or more years of schooling.

Family Size and Composition

Average family size was 4.8 persons. About a quarter of the families had 1 or 2 members, and another quarter had 7 or more (table 2). Although the definitions used are not identical, program families were about one-third larger than the average-size (3.6) U.S. family. 8/ There were about 10 percent more females than males in program families.

More than 75 percent of the families had children less than 19 years of age and more than 10 percent had 7 or more children (table 2). The average number per family was 3. Approximately 60 percent of the families had children in school and 40 percent

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6/ U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 71, "Consumer Income," U.S. Government Printing Office, Washington, D.C., 1970, p. 1.

7/ Ibid., p. 1.

8/ U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 75, "Income in 1969 of Families and Persons in the United States," U.S. Government Printing Office, Washington, D.C., 1970, p. 19.

Table 1.--Profile of EFNEP families and homemakers, 1969 1/

Characteristics of family or homemaker	Families in sample	
	Total 1/	2 food reading 2/
	Percent of families	
Residence		
Urban	58	53
Rural nonfarm	34	37
Farm	8	10
Race		
White	32	25
Black	52	62
Spanish American	14	12
American Indian	2	1
Families on welfare	33	34
Families receiving U.S. food assistance		
Food stamps	14	15
Food distribution	23	28
Families shopping primarily at		
Supermarket	73	68
Small local store	27	32
Families with home garden	33	39
Families renting residence	56	52
	Years	
Age of homemaker	43	45
Education of homemaker	8.0	7.7
	Dollars	
Average monthly family income and food expenditures 3/		
Income	221	195
Per capita	46.0	38.2
Food expenditures	76	70
Per capita	15.8	13.7
	Percent	
Percentage of income for food expenditures	34	36
	Number	
Family composition		
Family size	4.8	5.1
Children less than 19 years of age	3.0	3.2
Children in school	1.9	2.1
Children in school lunch program	1.2	1.4
Families reporting	10,524	2,843

1/ Sample of families entering EFNE Program during first 9 months of operation.
2/ Sample families that had homemakers with two food readings.
3/ Income and food expenditure estimates do not include value of bonus food stamps and donated foods. Income estimate is before taxes.

Table 2.--Program families by family size and number of children less than 19 years of age, 1969

	Percent
Families reporting	
Number in family	
1 or 2	23.9
3 or 4	26.8
5 or 6	23.4
7 or 8	14.5
9 or more	11.2
Children less than 19 years of age	
0	23.8
1 or 2	25.1
3 or 4	24.3
5 or 6	15.3
7 or 8	8.0
9 or more	3.6
	Number
Families reporting	10,524

Table 3.--Program families by number of children in school and number of children participating in school lunch programs, 1969

	Percent
Families reporting	
Children in school	
0	40.5
1	12.9
2	13.2
3	11.0
4	8.8
5 or more	13.5
Children in school lunch program	
0	57.7
1	10.6
2	10.3
3	7.9
4	5.6
5 or more	7.9
	Number
Families reporting	10,524

had children participating in a school lunch program (table 3). About two-thirds of the children were in school, and an average of 1.2 children per family--about 63 percent of those attending school--participated in the USDA school lunch program.

Economic Characteristics

When a family joins the program, an estimate of the previous year's income is recorded in the family record in $1,000 intervals, e.g., between $3,000 and $4,000. Also, an estimate of a family's actual monthly income and food expenditure is obtained each time a food reading is taken. Most sample families had very low incomes; 90 percent were in the lowest income quartile of all U.S. families. More than 60 percent had annual incomes of less than $3,000, whereas less than 10 percent had incomes of $5,000 or more. In comparison, the distribution of U.S. families in 1969 shows that fewer than 10 percent had incomes below $3,000, and 80 percent had incomes of $5,000 or more (table 4).

Table 4.--Distribution of U.S. families and households in the EFNEP sample by annual income, 1969

Annual income	United States	Sample 1/
	Percent	
Families reporting	100.0	100.0
Under $1,000	1.6	17.5
$1,000 to $1,999	3.1	24.2
$2,000 to $2,999	4.6	21.4
$3,000 to $3,999	5.3	17.3
$4,000 to $4,999	5.4	10.1
$5,000 and over	80.0	9.5

1/ Based on estimate of family annual income for year preceding entry into EFNEP. About 5 percent of the sample families were from Puerto Rico.

Source: Survey of EFNE Program families and U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 75, "Income in 1969 of Families and Persons in the United States," U.S. Government Printing Office, Washington, D.C., 1970, p. 32.

Average monthly income of families entering the program was about $221 of which $76, about one-third, was spent for food. 9/ Projecting these figures, annual income and food expenditures would be approximately $2,650 and $910, respectively. Projected annual income based on monthly estimates appears to be reasonably consistent with estimates of annual income. Average annual income in the United States in 1969 was about $10,600 per family, i.e., 4 times larger than that of families in the EFNEP. 10/

9/ The considerable variation in the income and food expenditure estimates should be considered in interpreting the data. The standard deviation for the income and food expenditure estimates for sample families was $137 and $51, respectively. The standard deviations for these estimates for selected socioeconomic groups are given in table 31.

10/ U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 75, p. 32.

There was a positive association between income and food expenditures. Figure 1 shows average food expenditures by income classes for sample families reporting income and food expenditures. Lower income families tend to be smaller and the income and food expenditure estimates do not include the values of bonus food stamps, donated foods, or foods from home gardens. Families with monthly incomes of less than $100 spent less than $35 per family per month for food, whereas those with incomes of $400 and more spent in excess of $120. The lowest income families spent nearly one-half of their income for food,whereas those with incomes of more than $399 per month spent approximately one-fourth (fig. 2).

Although the income food expenditure patterns in figure 1 were based on all sample families, similar patterns were derived for sample families participating in the food stamp and food distribution programs and those not participating in a food assistance program. In the analyses, about 30 percent of the variation in food expenditures was related to income levels, indicating that although income was an important determinant of food expenditures, a large proportion of the variation in food expenditures was related to other factors, e.g., family preferences. 11/

About 60 percent of sample families lived in rented housing. Low incomes combined with large families severely limit per capita income available for housing and food. Many families--approximately 33 percent--were on welfare and about the same percentage were participating in a U.S. food assistance program (food stamp or donated foods). Many families received both welfare and food assistance (table 5).

Household Facilities

Most program families had facilities necessary for storing, preparing, and cooking foodstuffs. Ninety-five percent had electricity and 75 percent had water inside the house. Probably many households without water inside the house were located in farm and rural nonfarm areas and had access to water close to their dwellings.

More than 90 percent of households had refrigerators and 20 percent had freezers. Almost 90 percent had stoves and 60 percent had ovens. A few households had ice boxes and hot plates--less than 4 percent in each case.

Shopping Patterns

Families purchasing food at supermarkets probably have access to a larger variety of foods at lower unit costs than those shopping at small local stores. More than 70 percent of sample homemakers shopped primarily at supermarkets. Approximately a quarter shopped at small local stores and a few reported making food purchases regularly at both types of food outlets.

11/ For example, the association between food expenditures and income for 4-member families not in a U.S. food program (and excluding Puerto Rico) was derived from the following equation:

$$\log Y = .4560 + .5795^{**} \log X \qquad R^2 = .38$$

where:
Y = monthly family food expenditures
X = monthly family income

** Significant at 0.01-confidence level.

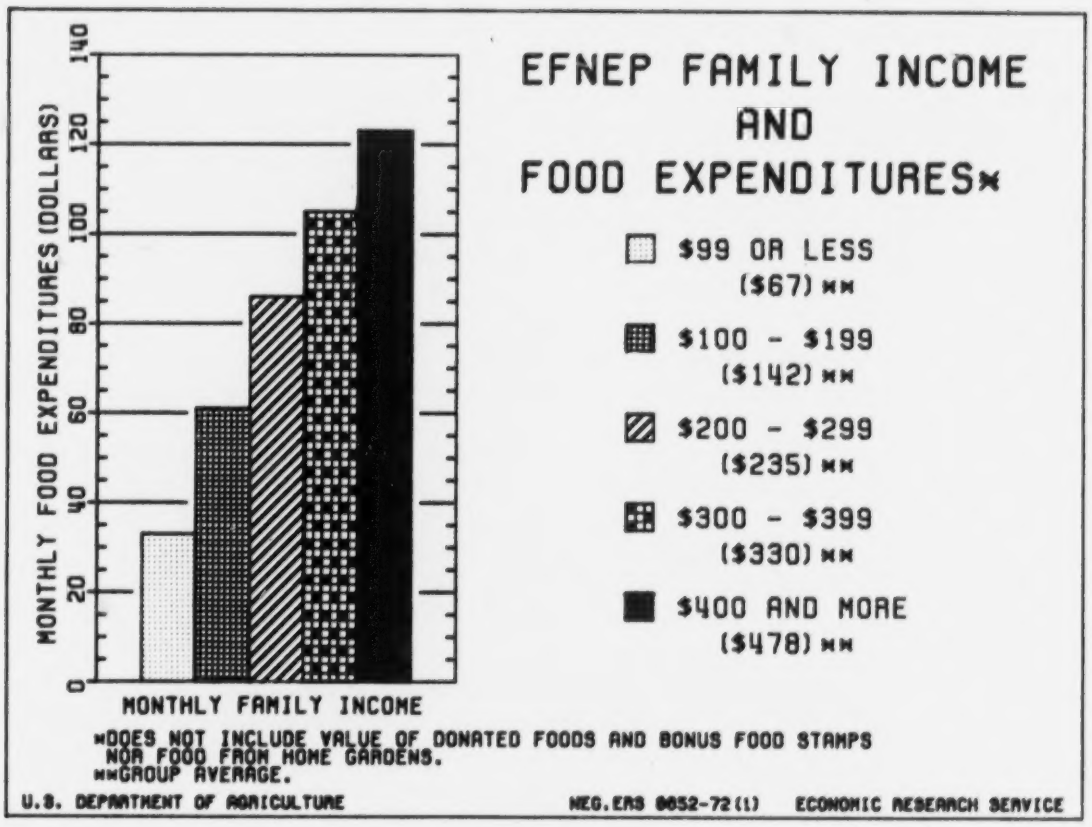

Figure 1

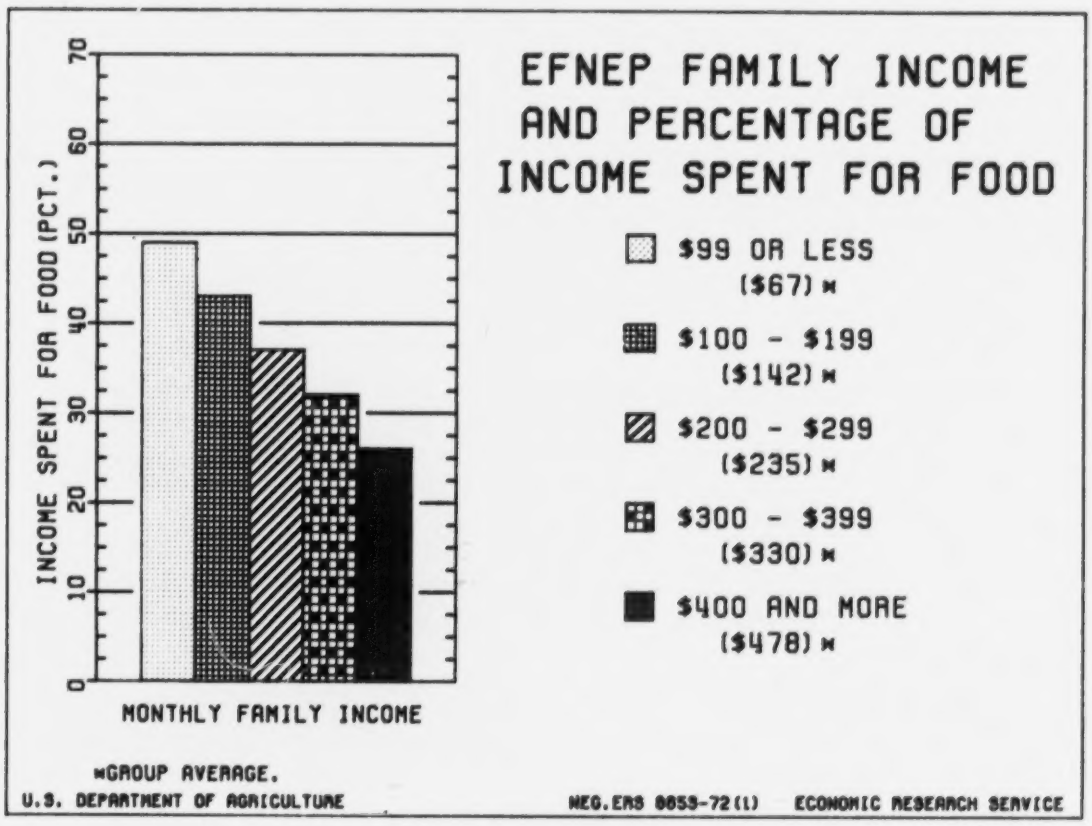

Figure 2

Table 5.--Characteristics of EFNEP families participating in a U.S. food assistance program, 1969 1/

Characteristic of family or homemaker	U.S. food program assistance 2/		
	Food stamp	Food distribution	No assistance
	Percent of families		
Residence			
Urban	51	48	62
Rural nonfarm	37	41	31
Farm	12	11	7
Ethnic group			
White	39	33	28
Black	53	52	53
Spanish American	6	12	18
Other	2	3	1
Welfare status			
On welfare	59	52	19
Not on welfare	41	48	81
Families shop primarily at			
Supermarket	77	59	76
Small local store	23	41	24
	Dollars		
Average monthly family income and food expenditures 3/			
Income	198	161	246
Per capita	36.0	32.2	52.3
Food expenditures	76	59	82
Per capita	13.8	11.8	17.4
	Years		
Age of homemaker	42	47	42
Education of homemaker	8.1	7.3	8.1
	Number		
Family size	5.5	5.0	4.7
Families reporting	1,270	2,031	5,720

1/ Based on sample of 9,515 families.
2/ Status at time of first food reading.
3/ Income is before-tax estimate. Food expenditure estimates do not include values of foods from home gardens, donated foods, or value of bonus food stamps.

Proximity to a store is advantageous for low-income families since they do not always have car transportation readily available. About 40 percent of the families lived within 1 mile of their primary shopping outlet, an equal number lived between 1 and 5 miles, and more than 20 percent lived beyond 5 miles.

If transportation is readily available, distance to the shopping outlet assumes less importance. About one-half of the homemakers reported using a car as the primary mode of transport when food shopping, nearly 10 percent took a bus or taxi, and more than 20 percent walked. About 20 percent of the homemakers used other types of transportation or a combination of modes.

Homemakers Leaving Program

The sample was selected from families enrolled in the program prior to October 1969. At the time the data were collected (May, June, and July 1970), it was determined if sample families were still participating. About 30 percent had left the program by the time of this survey. About 80 percent of those leaving had participated less than 6 months.

Primary reasons reported for leaving were change of residence by the family and unavailability of a program aide for visitation, i.e., the aide resigned, moved, was transferred, was terminated, or otherwise not available to visit families. Of the families leaving, about 30 percent moved, and 25 percent were dropped because an aide was unavailable (table 6).

Table 6.--Reasons reported for families leaving EFNEP

Reason for leaving program	Number	Percent
Family moved	843	31
Aide not available	683	25
Homemaker not interested	361	13
Homemaker works	231	9
Homemaker doesn't need help 1/	230	9
Aide cannot contact homemaker 2/	102	4
Homemaker sick or old	76	3
Homemaker died	67	2
Homemaker would not cooperate	52	2
Other reasons	54	2
Total	2,699	100

1/ Includes families not requiring help when they enrolled, families whose incomes were too high to be eligible for program participation, and "graduates" from the program.

2/ Because homemaker is not at home, too busy, or otherwise unavailable.

Less than 15 percent of the families that left did so because of lack of interest. In some cases, families were dropped because it was determined that assistance was not needed. Others were dropped because the homemakers had acquired sufficient food knowledge and satisfactory consumption practices after participating in the program. They had benefited from the program and "graduated." Those who left after 6 or more months in the program may fall into this last category.

In summary, most sample families leaving the program during its first 18 months of operation did so for reasons unrelated to their acceptance of the program or benefits received therefrom. Most left "involuntarily," e.g., the family moved or a program aide was not available.

Families leaving the program were generally similar to those remaining, although some characteristics differed. Those leaving the program tended to be younger, white, not on welfare, and to have smaller families and higher incomes than those remaining (table 7). Evidently, the relatively more deprived families tend to stay in the program while those with more financial resources, particularly on a per capita basis, leave.

Table 7.--Selected characteristics of EFNEP families and homemakers

Characteristic of family or homemaker	EFNE program status 1/	
	Remaining in program 2/	Left program 3/
	Percent	
Families reporting		
More than 4 persons in household	52	43
Children in household	78	72
Children in school	63	51
Children in school lunch program	46	35
White	30	38
Urban residence	57	60
Home ownership	46	39
Less than $3,000 annual income	64	60
On welfare	34	29
Participation in U.S. food program	35	31
Home garden	34	30
Homemakers reporting		
Less than 30 years of age	22	31
Less than 8 years of education	40	38
	Number	
Families reporting	7,345	3,076

1/ As of date of survey (May-July 1970).
2/ Sample families who enrolled in the EFNEP between January and October 1969 and were still in the program at date of survey (May-July 1970).
3/ Sample families who enrolled in the EFNEP between January and October 1969 but had left the program prior to date of survey (May-July 1970).

Comparison of Sample with Aggregate Data

The sample of families was selected from program units having families with 2nd food readings prior to October 1969. A management information reporting system provides summary data on selected family characteristics from all units at 6-month intervals. Characteristics of all participating EFNEP families in October 1969 correspond closely to the characteristics of those in the sample (table 8). The difference in the percentage of homemakers with less than 8 years of education was probably due to different methods of calculation. 12/

Table 8.--Characteristics of all homemakers enrolled in EFNEP and those in the program sample, September 1969

Characteristics	EFNEP families	
	Total in program 1/	Sample 2/
	Percent	
Families reporting		
Annual income		
Less than $1,000	19	18
$1,000-$2,999	46	45
$3,000 and over	35	37
Ethnic group		
White	33	32
Black	50	52
Spanish American	15	14
Other	2	2
Residence		
Urban	59	58
Rural nonfarm	32	34
Farm	9	8
Receiving welfare	32	33
Education of homemaker less than 8 years of schooling 3/	32	40
	Number	
Families reporting	138,666	10,524

1/ Calculated from summary reports submitted by all program units participating as of September 1969, but does not include families that left the program prior to September.

2/ Sample was selected from all families enrolled prior to October 1969, and includes families that left the program prior to that date.

3/ About 15 percent of the homemakers in the sample did not report education. The percentage with less than 8 years of education was calculated by dividing the number with less than 8 years by the total number reporting education. In the unit reports, the number with less than 8 years was divided by the total number of homemakers in the program. This tends to make the sample percentage larger than the percentage derived from the unit reports. The same procedures were used in calculating the percentage of families on welfare.

12/ See footnote 3 in table 8.

Program Aides

Most aides are selected largely because of their ability to communicate with low-income families. About 70 percent lived in the same neighborhoods as the families they served. Aides are trained by professional home economists.

About half of the aides had completed high school and 16 percent had 1 or more years of college. The average years of education was 11. Nearly half of the aides were black; about 30 percent, white; and approximately 20 percent, Spanish American. The aides' average age was 40 years. They had about 7 years of previous work experience, although 12 percent had no previous experience. Their average estimated annual income before becoming employed with the EFNEP was $4,350.

More than half of the aides worked full time and only 10 percent worked less than 20 hours a week. The aides spent more than 60 percent of their working time visiting program families; 90 percent spent at least half of their working time visiting families.

The average number of families per aide was 28, with about 16 percent of the aides working with more than 60 families, and an equal percentage working with less than 20 families. A small number of aides, about 2 percent, were in supervisory positions and did not work directly with families. About 1 aide in 4 left the program, some to accept other jobs.

FOOD KNOWLEDGE AND CONSUMPTION PRACTICES OF HOMEMAKERS ON ENTERING PROGRAM

Food readings are used to estimate food knowledge and consumption practices of homemakers of EFNEP families, and are secured by program aides from homemakers on an individual basis as soon as possible after families enroll. Subsequent readings are taken at 6-month intervals. The homemaker's diet is assumed to be an index or proxy measure of general family nutrition. 13/

Food Knowledge

An indicator of homemaker's food knowledge was obtained by asking her to name foods necessary for health. Specifically, the aide asked, "What food and drink do you think people should have to keep healthy?" Foods and drinks named by the homemaker were later categorized into one of the major food groups--milk, meat, fruit/vegetable, or bread/cereal.

Homemakers naming a food in a particular food group as being necessary for health were assumed to have knowledge of the importance or necessity of that food group being in the family diet. For example, if milk was named as necessary for health, it was assumed that the homemaker had knowledge of its importance in the diet. Homemakers naming at least one food in each of the four major food groups were assumed to have overall or general food knowledge, i.e., knew the types of food that should be included in a well-balanced diet.

According to the food knowledge measure, only about half of the homemakers entering the program exhibited general food knowledge, by naming foods in each of the four basic food groups as necessary for health. By individual food groups, the fruit/vegetable group was named most often and bread/cereal, least. About 84 percent named fruit/vegetable; 82 percent, meat; 77 percent, milk; and 65 percent, bread/cereal. The relatively low proportion naming bread/cereal is probably due to an association of breads and other starchy foods with obesity or a common belief that most people eat enough or too much food in this group.

Food Knowledge by Selected Characteristics 14/

Rural homemakers were superior in the overall measure of food knowledge; however, a larger percentage of urban homemakers named meat as necessary for health. Homemakers not on welfare had slightly better food knowledge than those on welfare, although differences were not large. Homemakers with more years of formal education scored higher in most measures of food knowledge. However, there was no apparent association of education with bread/cereal knowledge. Association was particularly evident in the case of milk and fruit/vegetables.

Income tended to be associated with general food knowledge. However, there was no consistent association between food expenditures and food knowledge, although knowledge of meat and fruit/vegetables tended to increase as expenditures increased.

13/ The diets of the children may be better than the homemaker's because of school lunches. It may also be argued that a mother would tend to provide a better diet for her children than for herself.

14/ Food knowledge was measured in terms of the percentage of homemakers naming food groups as necessary for health. The food knowledge measures for the groups of homemakers discussed in this section are given in tables 11-19. All tables referred to in this and subsequent sections are at the end of the text.

Homemakers in the food stamp program scored higher than homemakers not participating in a U.S. food assistance program in general food knowledge and received higher scores on knowledge of individual food groups. However, the difference was small in the case of milk. Homemakers receiving donated foods scored slightly higher than non-participating homemakers in bread knowledge and the composite measure of food knowledge. In general, food stamp homemakers tended to score higher than donated food homemakers in food knowledge.

Food knowledge varied depending on the ethnic background of the homemaker. Black homemakers scored highest and white homemakers lowest on the composite measure of food knowledge. Fifty-seven percent of the black homemakers named a food in each of the four food groups as necessary for health; 47 percent of the Spanish American homemakers; and 45 percent of the white homemakers. White homemakers, relative to other homemakers, scored lowest in milk knowledge, meat knowledge, and bread/cereal knowledge. Spanish American homemakers scored highest in meat knowledge, and black homemakers scored highest in fruit/vegetable and bread/cereal knowledge.

Older homemakers generally exhibited less overall food knowledge than younger ones, and homemakers 70 years and older scored particularly low in the knowledge measures. There was little relationship between family size and food knowledge; however, 1- and 2-member households tended to score low on many of the food knowledge measures and 7- and 8-member households tended to score high.

Food Consumption Practices

Estimates of the number of servings of food from each of the four major food groups (milk, meat, fruit/vegetable, and bread/cereal) eaten during a 24-hour period was used as a measure of the food consumption practices of the homemaker. To ascertain food consumption practices, the aide asked the homemaker to recall foods she had eaten during the previous 24 hours. Foods eaten each meal, between meals, and away from home were listed; however, the quantity of each food consumed was not recorded. A trainer-agent using prescribed procedures classified the foods into the four major food groups. 15/ Some foods such as butter, sweeteners, and beverages other than milk and fruit/vegetable juices were not classified. Each time a food was consumed was counted as a serving of the respective food group, except when the intake was believed to be insignificant. For example, cream or milk taken in coffee was not counted as a serving of milk. Beans and peas are included in the meat (protein) food group.

To evaluate the homemakers diets and to identify food groups lacking in the diet, the estimated number of servings from the four food groups were compared with a serving guide based on serving levels recommended in the Daily Food Guide for the four major food groups--2 or more servings from the milk group, 2 or more from the meat group, 4 or more from the fruit/vegetable group, and 4 or more from the bread/cereal group (2,2,4,4). 16/

15/ See appendix II for classification of foods into food groups.

16/ This measure was based on the minimum number of servings suggested in the USDA's "Food for Fitness, A Daily Food Guide," Leaflet No. 424. The Daily Food Guide specifies the amount of food constituting a serving in each of the four food groups. An individual serving as reported in this study was not measured and thus may be more than, equal to, or less than the amount specified in the food guide. However, to provide a normative, operational measure for evaluating food consumption practices, it was assumed that reported servings were equivalent, on the average, to those specified in the food guide. In interpreting the findings, this assumption should be recognized.

Only 5 percent of the homemakers in the sample had diets that met the serving guide criteria for each of the four food groups--95 percent had less than the number of servings specified in the serving guide for one or more food groups (fig. 3 and table 9). However, nearly 60 percent reported at least 1 serving from each group.

Diets were nearer recommended serving levels in foods from the milk group and most lacking in the fruit/vegetable group. Seventy-eight percent of the homemakers reported the recommended number of servings from the meat group, whereas only 18 percent reported recommended number of servings from the fruit/vegetable group. Thirty-five percent reported the recommended number of servings for the milk group and 38 percent, for the bread/cereal group.

A number of homemakers in the sample left the program. The food consumption practices of both those leaving the program and those remaining were similar (table 9). About 56 percent of the sample families entered the program in January-March 1969; 28 percent, in April-June; and 15 percent, in July-September. Homemakers entering the program during these periods also had similar initial diets (table 10).

Food Consumption by Selected Characteristics

Most sample homemakers enrolled were below recommended consumption levels in one or more food groups. Program planning and operations may be facilitated by identifying homemakers with poorest diets. To understand better the factors or conditions associated with dietary levels, food consumption practices of homemakers with varying socioeconomic characteristics were compared. Even though consumption patterns were generally similar, some substantial differences were observed.

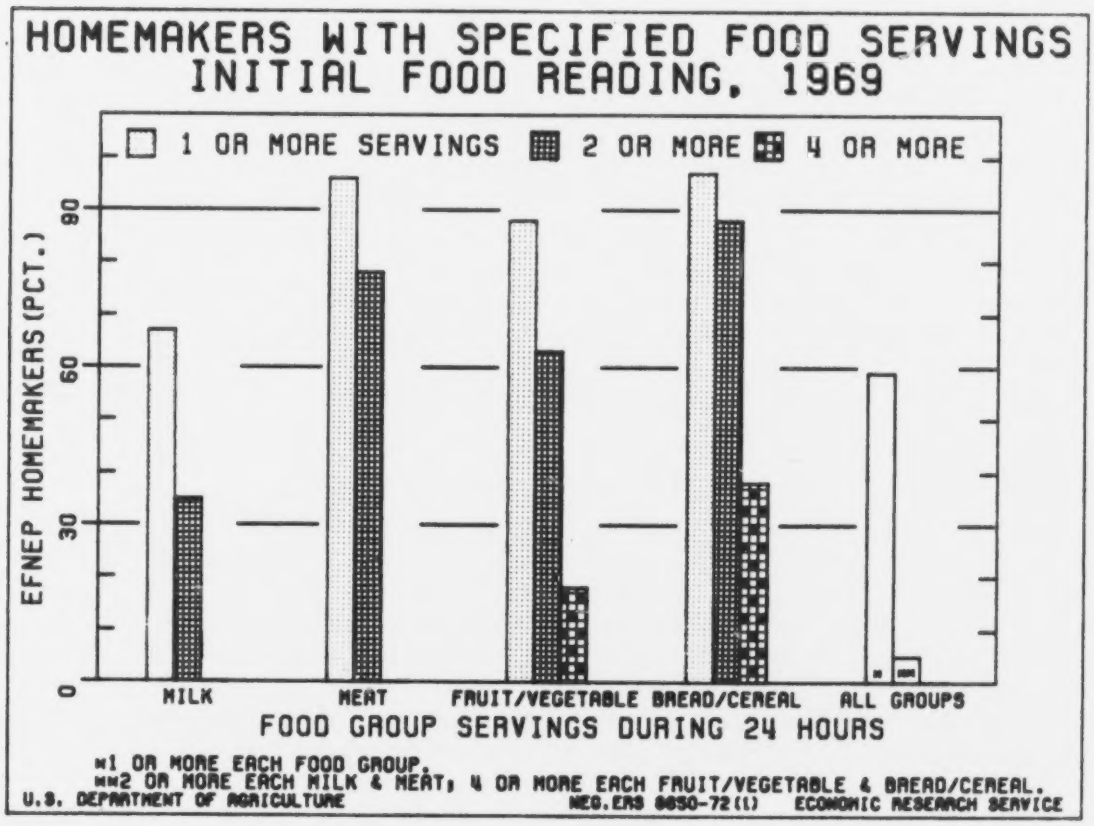

Figure 3

Residence

Farm families had average monthly incomes of $182 with $67 in food expenditures, compared with $209 and $76 for rural nonfarm and $234 and $77 for urban families, respectively. Farm families tended to be larger, 5.5 persons per family, than other families whose average size was less than 5 members. Despite the larger families, lower incomes, and lower food expenditures of homemakers in rural farm areas, they had better diets than homemakers in other residence categories (fig. 4 and table 11).

The diets of rural farm homemakers were superior in both fruit/vegetable and bread/cereal consumption, but about the same as the other residence categories for milk and meat. Better diets among the farm population may be a reflection of better food knowledge but more likely can be attributed to availability of food from home gardens.

Welfare Status

Initial readings taken upon entering the program show that families on welfare have average monthly incomes of $171 and food expenditures of $66, compared with $247 and $82 for nonwelfare families. Welfare and nonwelfare families had about the same number of persons per family. The consumption profile of homemakers on welfare was slightly lower in all food groups than that of homemakers not on welfare (fig. 5 and table 12). Differences were greatest for meat and fruit/vegetable groups. Poorer consumption practices of homemakers on welfare are consistent with their lower income and food expenditures and more limited food knowledge.

Education

Individuals with more schooling generally have a better understanding of foods necessary for good health, higher incomes, and more money available for food purchases. Sample homemakers with 3 or less years of education were from families with average monthly incomes of $159 and food expenditures of $63, compared with $304 and $89, respectively, for homemakers with 12 or more years of education. Average family size of homemakers with less than 4 years of education was 4.4 persons, considerably smaller than other education groups, which had an average of 4.8 or more persons.

Information on families entering the program showed that formal education of the homemakers was positively associated with consumption of foods in each group, particularly in the fruit/vegetable group (fig. 6 and table 13). Three percent of homemakers in the lowest educational category--3 years or less of schooling--had diets that met the 2, 2, 4, 4 serving guide as against 7 percent of those in the highest educational category--12 or more years of schooling. The percentages of homemakers in the lowest and highest educational classes having the recommended number of servings from the four food groups were, respectively, 31 and 41 percent for milk, 76 and 81 percent for meat, 11 and 25 percent for fruit/vegetable, and 32 and 42 percent for bread/cereal.

The findings indicate that education is associated with consumption levels and has a positive influence on food consumption practices. However, it is difficult to separate the effect of education from the effect of higher income associated with education.

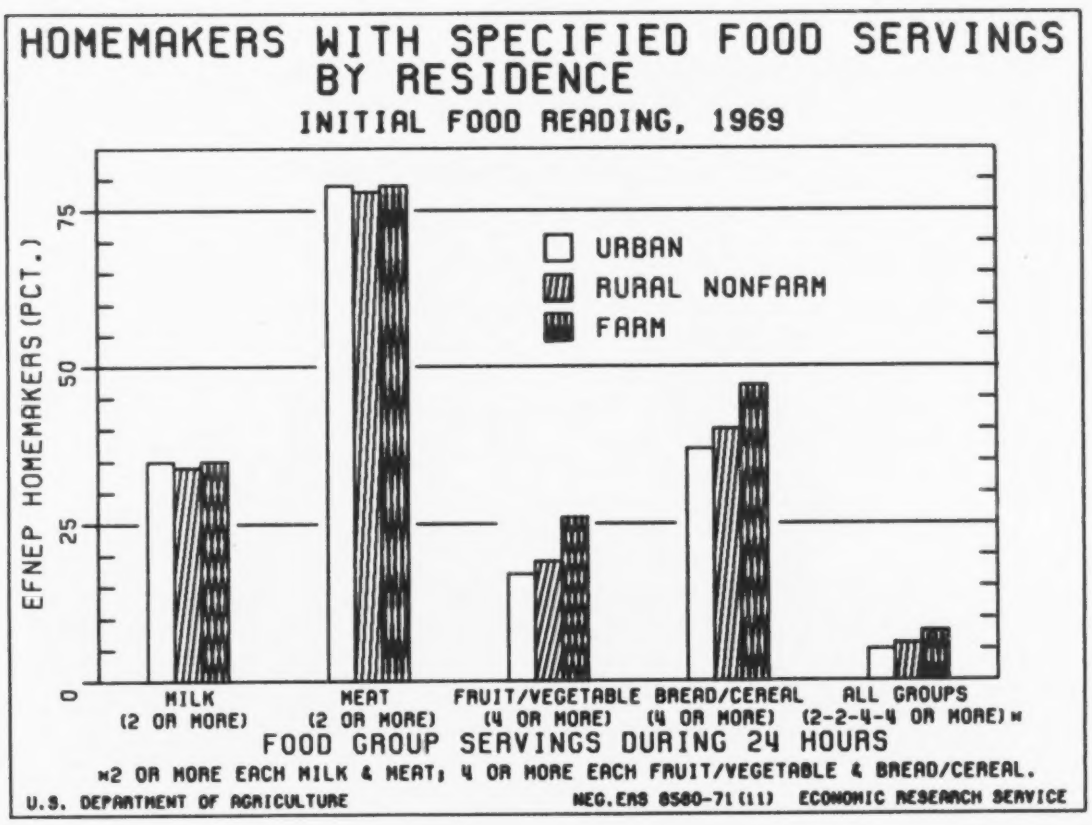

Figure 4

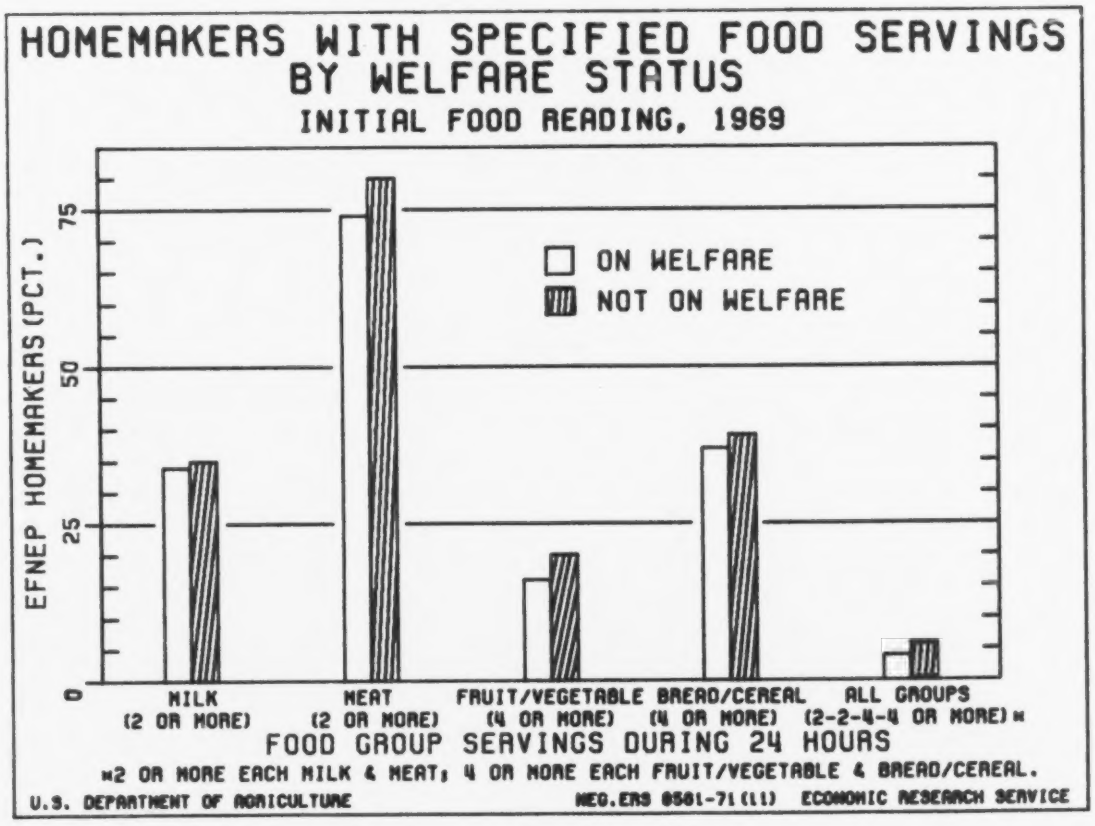

Figure 5

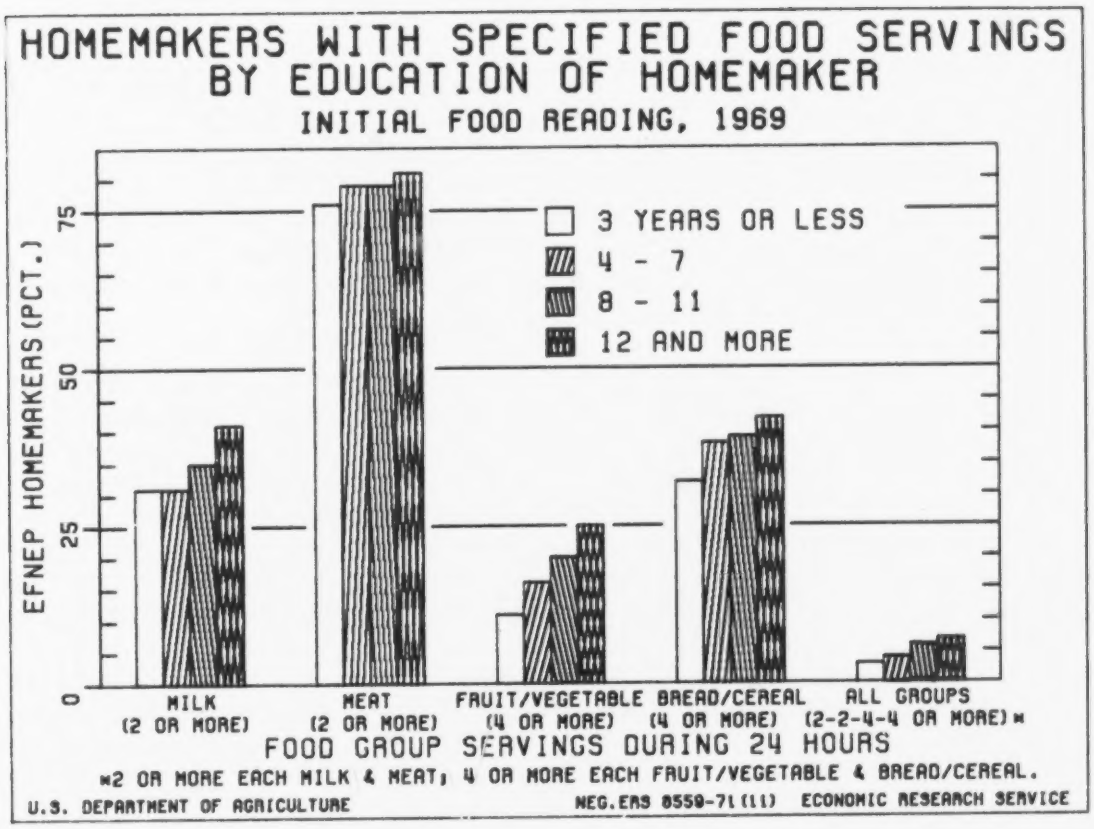
HOMEMAKERS WITH SPECIFIED FOOD SERVINGS
BY EDUCATION OF HOMEMAKER
INITIAL FOOD READING, 1969
EFNEP HOMEMAKERS (PCT.)
0
25
50
75
3 YEARS OR LESS
4 - 7
8 - 11
12 AND MORE
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)*
FOOD GROUP SERVINGS DURING 24 HOURS
*2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 6

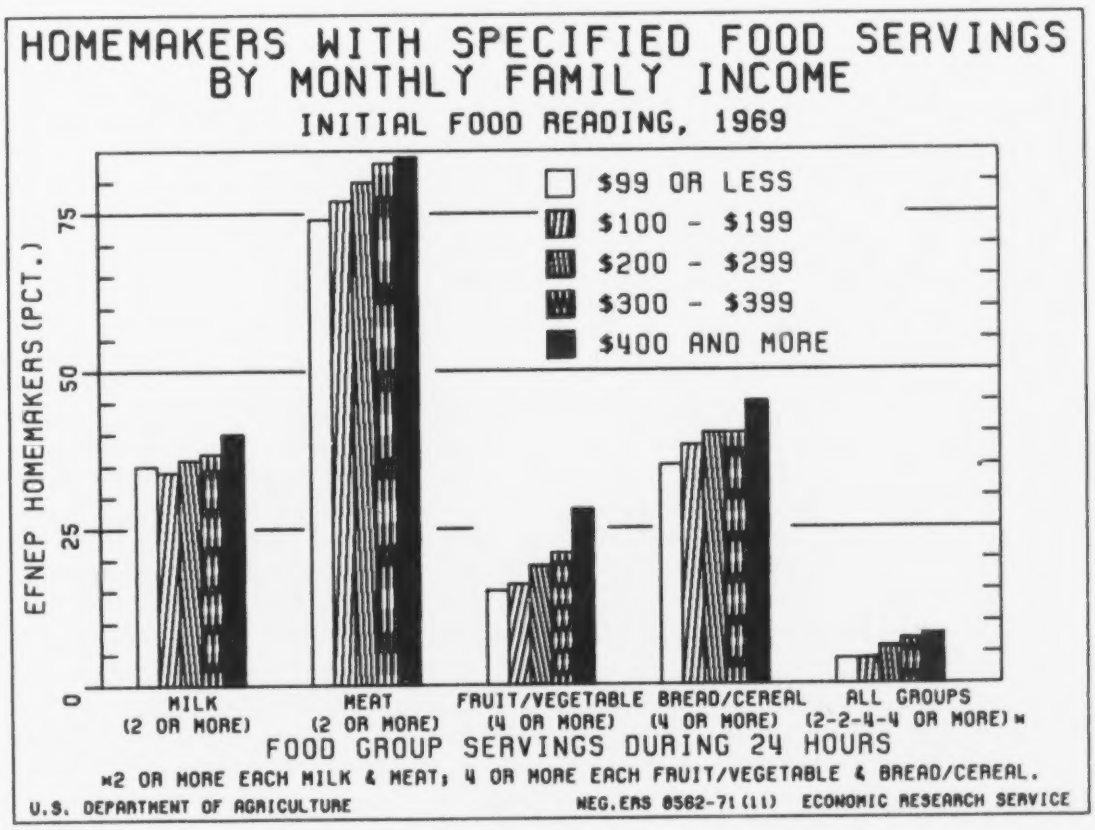

Figure 7

Income

Income affects food consumption since it largely determines the amount of money available for food expenditures. To examine the income/food consumption association, families were grouped by the before-tax monthly income reported at the initial food reading. Sample families with less than $100 monthly income had average monthly incomes of $67 and food expenditures of $33, compared with $478 and $123, respectively, for families with monthly incomes of more than $399. Although family size increased with income, ranging from 3.6 to 5.8 persons, per capita food expenditures were consistently larger for higher income groups.

Data showed a positive relationship between food servings and reported income that was most pronounced for meat and fruit/vegetables (fig. 7 and table 14). Four percent of homemakers in the lowest income category, less than $100 monthly, had the recommended number of servings (2,2,4,4) in each of the food groups, whereas 8 percent of the homemakers in families with monthly incomes of $400 or more did. The percentages of homemakers with recommended servings for the lowest and highest income classes were, respectively, 35 and 40 percent for milk, 74 and 84 percent for meat, 15 and 28 percent for fruit/vegetables, and 35 and 45 percent for bread/cereals.

The association between income and food consumption may be even greater since a substantial portion of lower income sample families probably received food assistance, the value of which was not included in the calculation of annual income. Thus, lower income families probably had higher consumption levels than if they had not received food assistance. Also, at the very low-income levels, representative of many program families, additions to income may be allocated to nonfood expenditures having a higher family priority. One challenge to the EFNEP is to motivate families to allocate a reasonable portion of any additional income to food purchases.

Food Expenditures

Homemakers would be expected to improve food consumption practices with increases in family food expenditures. Data from the sample showed a positive association between reported food expenditures and food consumption practices. Servings of food consumed in the milk, meat, and fruit/vegetable groups increased as food expenditures rose. However, there was no apparent relationship between expenditures and bread/cereal consumption (fig. 8 and table 15). Family size was also positively associated with food expenditures, although per capita food expenditures were less for lower food expenditure groups than for higher.

Only 4 percent of homemakers in the lowest food expenditure category, less than $65 monthly, had the program-recommended diet (2,2,4,4); whereas 7 percent of the homemakers in the highest category, more than $114 monthly, did. Percentages of homemakers with recommended number of servings for lowest and highest food expenditure classes were, respectively, 34 and 40 percent for milk, 76 and 84 percent for meat, 18 and 22 percent for fruit/vegetables, and 38 and 40 percent for bread/cereals.

The association between adequacy of food consumption and food expenditures is clouded, because the value of foods obtained from the food distribution and bonus food stamp programs was not included in family food expenditures reported. Possibly, food expenditures were not more highly associated with food consumption practices, because additional expenditures were not made for foods deficient in the diet. Additional food expenditures may also have been used to purchase higher priced foods rather than larger quantities. If so, diets could be improved by encouraging homemakers to purchase those foods deficient in the diet and more economically priced items.

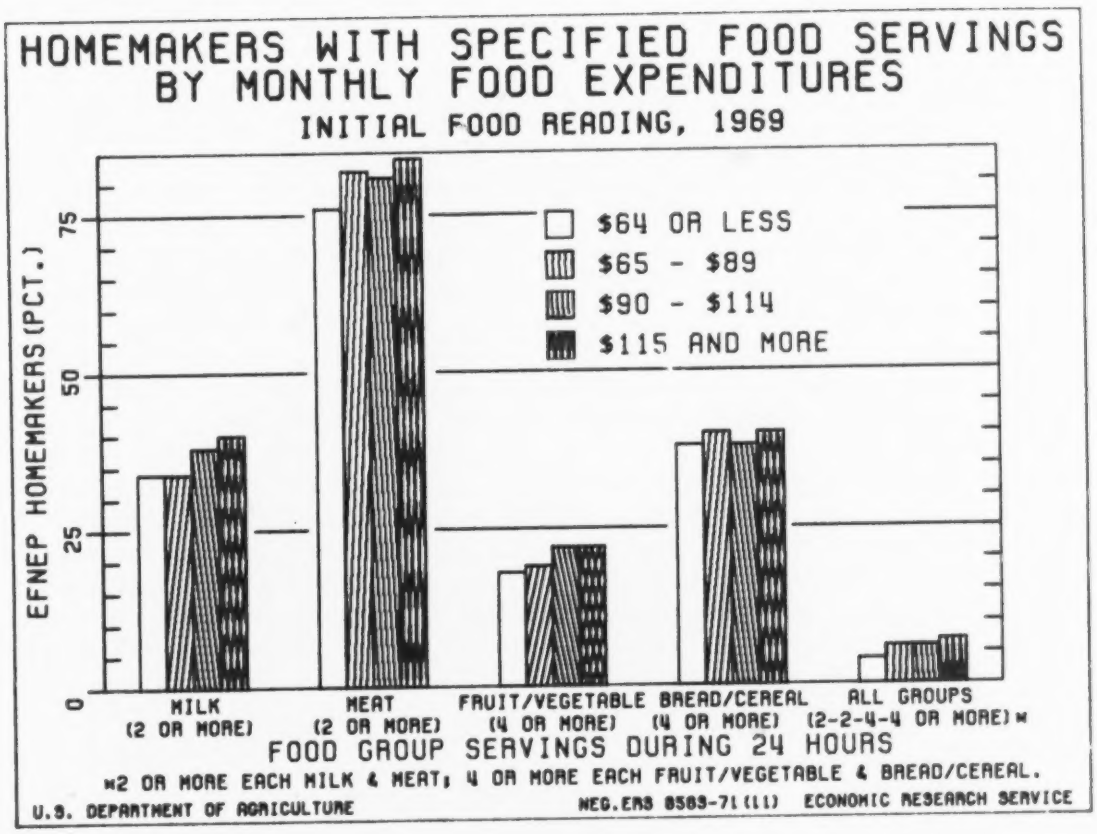
HOMEMAKERS WITH SPECIFIED FOOD SERVINGS
BY MONTHLY FOOD EXPENDITURES
INITIAL FOOD READING, 1969
EFNEP HOMEMAKERS (PCT.)
0
25
50
75
$64 OR LESS
$65 - $89
$90 - $114
$115 AND MORE
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE) *
FOOD GROUP SERVINGS DURING 24 HOURS
*2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 8

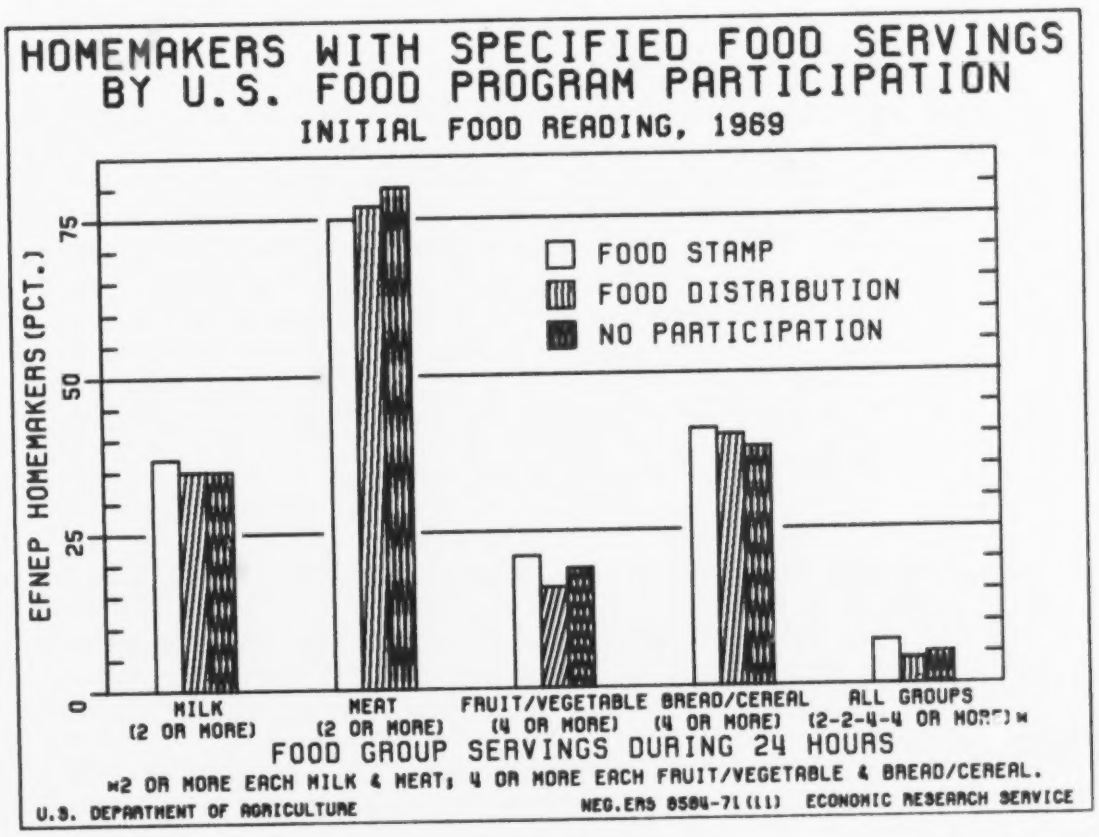

Figure 9

U.S. Food Program Participation

Average monthly income and food expenditures for families in the food stamp program were $198 and $76 (excluding value of bonus stamps); families in the food distribution program, $161 and $59 (excluding value of donated foods); and families not in a food assistance program, $246 and $82. 17/ Food stamp families were larger, 5.5 members, than either families in the food distribution program, 5.0, or nonparticipants, 4.7. On a per capita basis, nonparticipants were spending about $17 per month for food; food stamp families, $14; and food distribution families, $12. Although out-of-pocket food expenditures for EFNEP families participating in a food assistance program were 20-30 percent lower per capita, their food practices were quite similar to those of families not participating in a food assistance program. Thus, food assistance programs have a substantial positive impact on diets of low-income families.

Compared with families not participating in a food assistance program (fig. 9 and table 16), the proportion of homemakers with program-recommended diets (2,2,4,4) was higher among food stamp families, and about equal among families in the food distribution program. However, families not participating in a food assistance program had a higher percentage of homemakers consuming recommended number of meat servings--2 or more. Also, nonparticipants had a higher percentage with the recommended number of fruit/vegetable servings than homemakers in the food distribution program.

Ethnic Characteristics

Based on initial food readings, definite associations between ethnic characteristics of homemakers and their food consumption practices (fig. 10 and table 17) were evident. Relative to other homemakers, whites were lacking in meat consumption; blacks, in milk; and Spanish Americans, in fruit/vegetables and bread/cereals. Whites scored higher in the consumption of fruit/vegetables; Spanish Americans were higher in the consumption of foods in the meat group.

In examining variations in consumption practices, the comparative economic status of different groups should be noted. White families had higher incomes as well as smaller families. Whites had average monthly incomes of $234 and food expenditures of $79; blacks, $216 and $72; and Spanish Americans, $210 and $86. While differences in economic well-being of ethnic groups and their influence on consumption practices are evident, data show that dietary practices are also related to the ethnic backgrounds of program families. These relationships indicate maximum program achievement might be obtained by emphasizing the need for and encouraging the consumption of foods relatively deficient in diets of respective ethnic groups. For example, fruit/vegetable consumption could be emphasized among black homemakers.

Age

With the exception of the youngest age group considered, homemakers less than 30 years old, family income and food expenditures decreased with age of homemaker; but per capita income and food expenditures increased, because older homemakers were members of smaller families. Homemakers aged 30-39 years had an average family size of 6.4 members, compared with 1.9 members in families of homemakers over 70 years old.

17/ Income and food expenditures of households in a food program are underestimated to the extent they do not include the values of the donated foods and the bonus stamps.

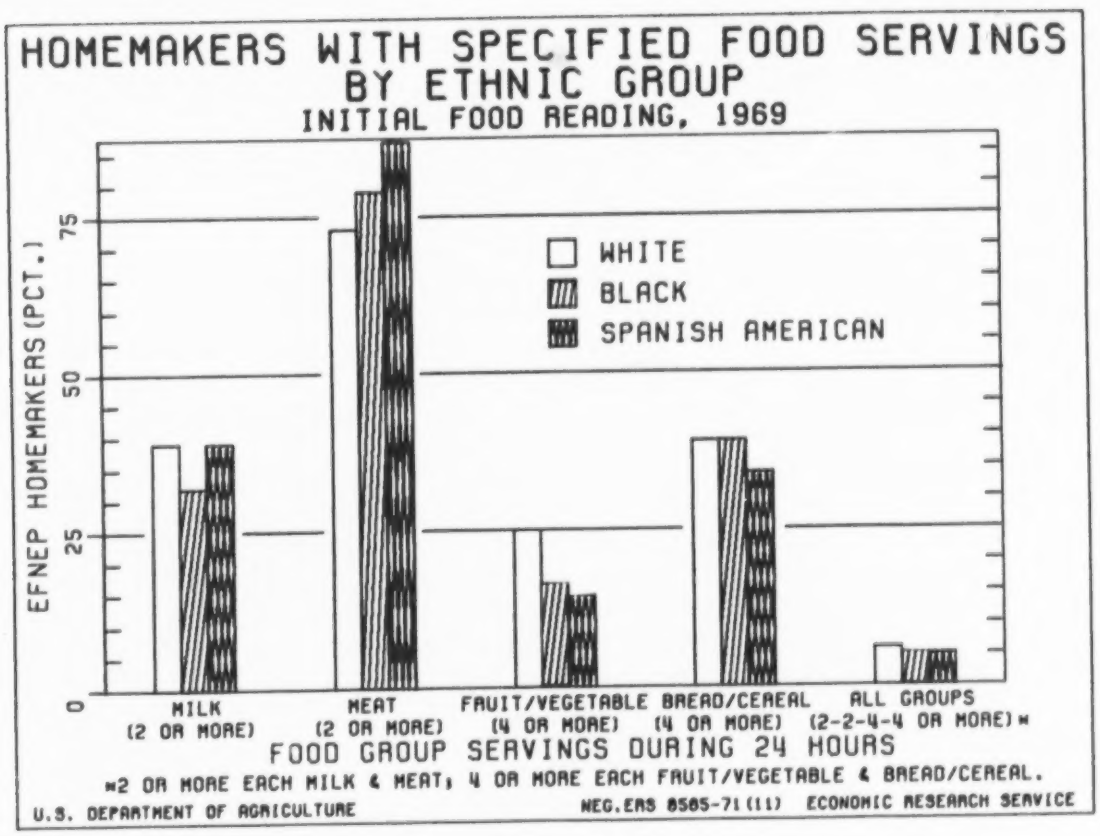

Figure 10

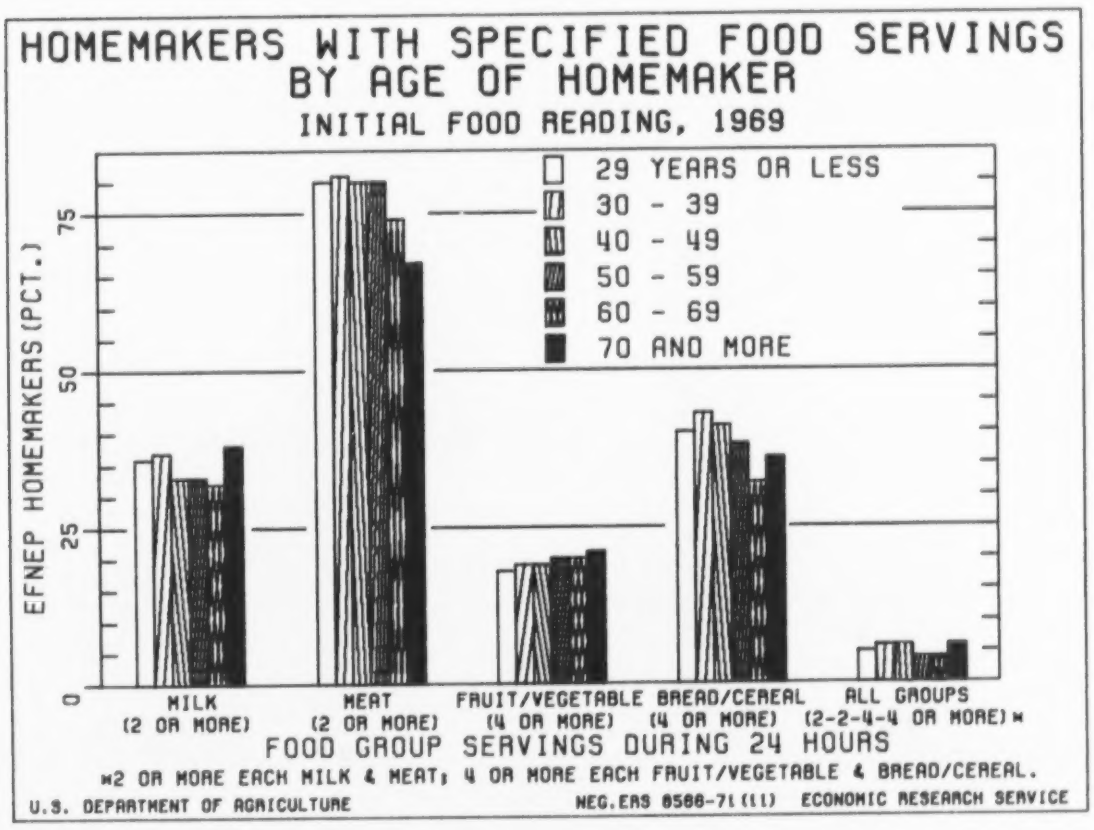
HOMEMAKERS WITH SPECIFIED FOOD SERVINGS
BY AGE OF HOMEMAKER
INITIAL FOOD READING, 1969
EFNEP HOMEMAKERS (PCT.)
0
25
50
75
29 YEARS OR LESS
30 - 39
40 - 49
50 - 59
60 - 69
70 AND MORE
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)*
FOOD GROUP SERVINGS DURING 24 HOURS
*2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 11

Food consumption practices did not vary consistently with age of homemaker (fig. 11 and table 18). More homemakers below 40 and above 69 years of age appeared to have higher levels of milk consumption. However, older homemakers were lacking in foods from the meat group.

Family Size

Although income and food expenditures increased with family size, per capita income and food expenditures decreased. One-member families had average incomes and food expenditures of $110 and $36, compared with $256 and $103 for families of 9 members and more (fig. 12 and table 19). On a per capita basis, food expenditures were $36 for the 1-member family and $10 for the 9- and more member family.

Since 1- and 2-member families are comprised largely of adults, meals may be more irregular and less well planned than if more children were present. Although 1-member households had the highest per capita incomes, they were somewhat lacking in foods from the meat, fruit/vegetable, and bread/cereal groups. Two-member families also tended to be lacking in meat and bread/cereals. Considering family sizes greater than one, fruit/vegetable consumption tended to decrease with family size and bread/cereal consumption, increase. This tendency probably reflects the higher per capita incomes of smaller families--low-income families probably cannot afford many foods in the fruit/vegetable group, thus they eat more bread/cereal foods.

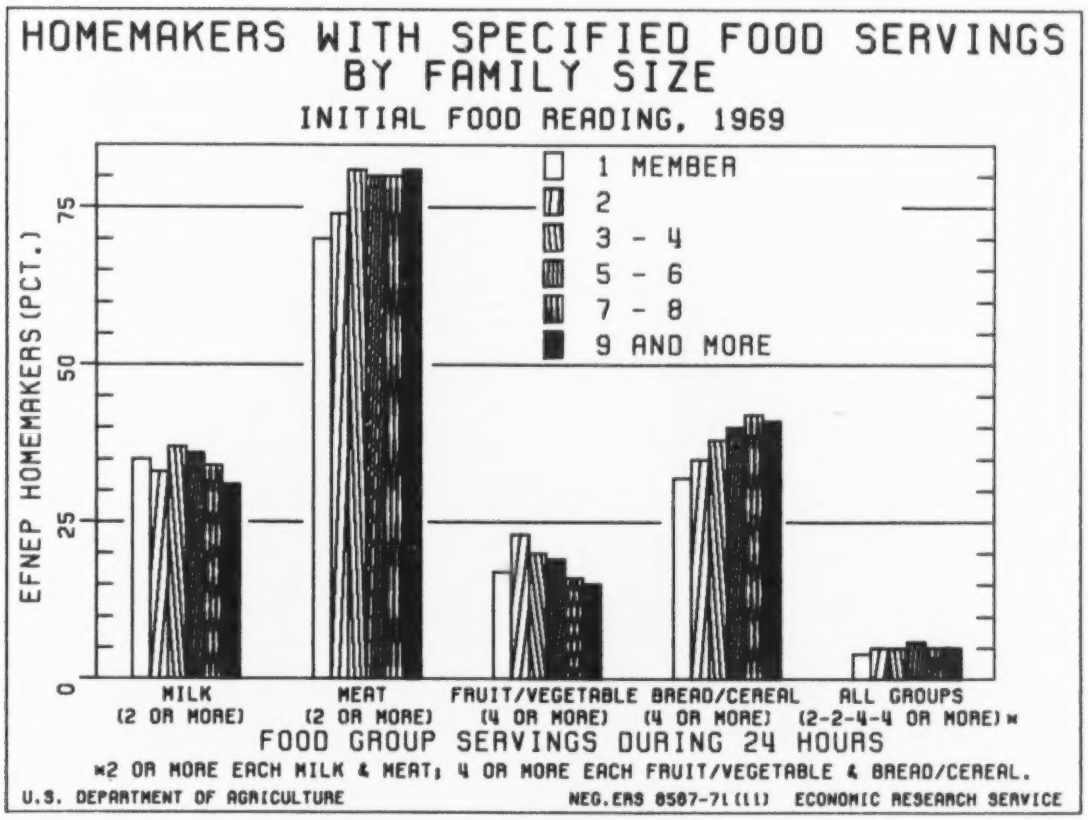

Figure 12

Food Knowledge and Consumption Practices

Knowledge of the importance of a food group for health does not insure that foods in that group will be consumed nor does lack of knowledge mean that they will not be included in the daily diet. However, data indicated that food knowledge, as measured in this study, was associated with and had a substantial effect on food consumption practices (table 20). Homemakers naming a food group as being necessary for health more often reported the recommended number of servings for that group than homemakers not naming the group.

Percentages of homemakers that named and did not name the food groups that had recommended number of servings of the respective food groups were: milk, 38 and 24 percent; meat, 80 and 71 percent; fruit/vegetable, 19 and 15 percent; and bread/cereal, 41 and 33 percent.

CHANGES IN FOOD KNOWLEDGE AND CONSUMPTION PRACTICES

The primary purpose of the EFNEP is to improve family diets through food and nutrition education. Data on 2,843 sample homemakers provide a basis for evaluating the program's effectiveness in terms of changes in food consumption practices over a 6-month period. Each of these homemakers had two food readings and had participated in the program 6 months or longer. 18/

Although there were some differences, the socioeconomic profile of sample homemakers with two food readings and their families was similar to that of all sample homemakers and their families who joined the program through September 1969 (table 1). The average education of the two-food-reading homemakers was 7.7 years and monthly family income, $195. The homemaker's average age was 44.8 years and family size was 5.1 persons, of which 3.2 were children less than 19 years of age. Approximately 2.1 children per family were in school and 1.4 were in a school lunch program.

Initial food readings were taken during January, February, and March of 1969, and the second, during July, August, and September. During the time lapse between food readings, both average monthly income and food expenditures of the families rose about 5 percent. Since food prices also rose more than 4 percent, the real increase in food expenditures was less than 1 percent.

Owing to the small magnitude of changes in income and food expenditures and considering increased food prices, increases in these two measures between food readings would not be expected to substantially affect food consumption practices. Analysis showed that the small changes in income and food expenditures over the 6-month period explained very little of the change in servings of food in the major food groups and were not principal determinants of change in food consumption practices. 19/

18/ At the time the sample was selected only a small number of homemakers had more than two food readings.

19/ The hypothesis that income and food expenditure changes between food readings were important factors affecting food consumption practices was rejected on the basis of the very low coefficients of determinations (R^2) derived in regression analyses.

$Y_1 = .42 - .00039X_1$	$R^2 = .0004$	$Y_1 = .41 + .00138X_2$	$R^2 = .001$
$Y_2 = .09 + .00128X_1^*$	$R^2 = .005$	$Y_2 = .10 + .00181X_2$	$R^2 = .003$
$Y_3 = .68 + .00065X_1$	$R^2 = .0007$	$Y_3 = .68 + .00267X_2^*$	$R^2 = .003$
$Y_4 = .27 - .00062X_1$	$R^2 = .0008$	$Y_4 = .25 + .00107X_2$	$R^2 = .0006$

where:

Y_1, Y_2, Y_3 and Y_4 are, respectively, change between food readings in number of servings from the milk, meat, fruit/vegetable, and bread/cereal food groups consumed by homemakers.

X_1 and X_2 are, respectively, changes in income and food expenditures between food readings.

* Significant at 0.05-confidence level.

Between food readings, there was a net increase in number of families participating in a U.S. food assistance program. However, the net increase was small and would not be expected to have a large effect on the proportions of homemakers with recommended number of servings. 20/

6-Month Period

At the second food reading, homemakers in the sample showed substantial improvements in both food knowledge and consumption practices. Homemakers having overall food knowledge, i.e., naming foods in each of the four food groups as being necessary for health, increased from 52 percent initially to 69 percent at the end of the 6-month period (table 21). Those mentioning a food in the milk group increased from 77 to 88 percent; in the meat group, from 81 to 91 percent; in the fruit/vegetable group, from 84 to 92 percent; and in the bread/cereal group, from 66 to 78 percent.

Over the 6-month interval the number of homemakers having the recommended number of servings from each of the food groups (2,2,4,4) increased from 4 to 11 percent (fig. 13). Homemakers receiving at least one serving in each food group increased from about 60 to over 70 percent. The percentage of homemakers consuming the recommended number of servings increased for each major food group. In the milk group, the percentage rose from 34 to 47 percent; in the meat group, from 75 to 83 percent; in the fruit/vegetable group, from 14 to 28 percent; and in the bread/cereal group, from 37 to 49 percent.

20/ Also, improvement in food consumption practices were evaluated on the basis of participation in food assistance programs (see page 34).

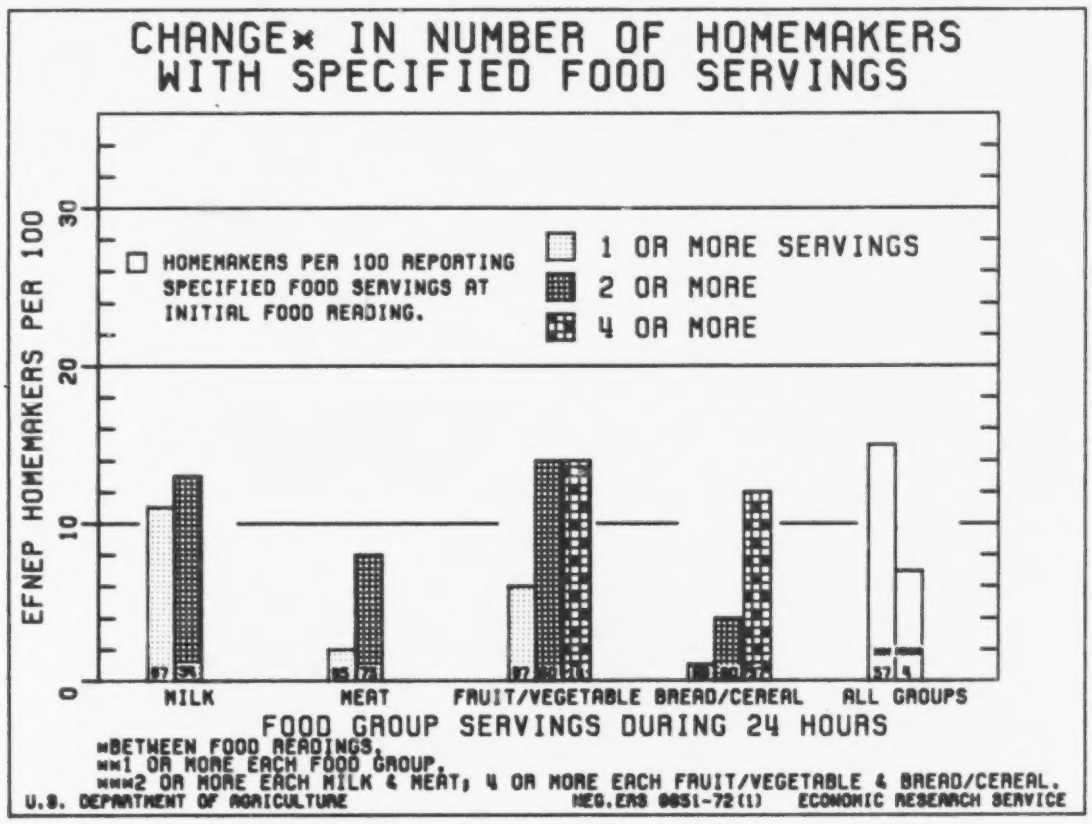

Figure 13

Average servings per homemaker rose substantially between readings for each food group. Progress was greatest in the food group most lacking in the diet, fruit/vegetable, and least in the food group nearest the recommended level, meat (fig. 14 and table 22). Average milk servings per homemaker increased 33 percent over the 6-month interval; meat, 8 percent; fruit/vegetable, 35 percent; and bread/cereal, 13 percent.

Some of the improvement in fruit/vegetable consumption may have been due to seasonality since most of the second food readings were taken during summer months. 21/ However, aggregate data show substantial improvement in fruit/vegetable consumption regardless of food reading date (also, see table 10).

There were significant relationships between initial consumption levels of the four food groups and the change in consumption of each group. Homemakers that had fewer servings of each group at the first food reading tended to make more progress than homemakers with more servings. In fact, 30 to 40 percent of the variation in the change in the consumption levels of each food group between food readings was related to the initial consumption level of the respective group. 22/

21/ According to a USDA Agricultural Research Service publication, Family Economics Review, ARS 62-5, September 1971, p. 6, increase in vegetable consumption during the summer months is more evident in rural areas.

22/ The coefficients of determination (calculated from the simple correlation between initial consumption level and change in consumption) for the milk, meat, fruit/vegetable, and bread/cereal food groups are .30, .42, .29, and .38, respectively. The relationships between initial and change in consumption levels are also shown in the following equations.

$$Y_1 = 1.01 + .019^{**}X_1 - .70^{**}X_2 + .0020X_7 - .00001X_7^2 \qquad R^2 = .31$$

$$Y_2 = 2.17 + .006X_1 - .76^{**}X_3 - .0057^{**}X_7 + .00002^{*}X_7^2 \qquad R^2 = .43$$

$$Y_3 = 1.78 + .020^{*}X_1 - .72^{**}X_4 + .0058^{*}X_7 - .00002^{*}X_7^2 \qquad R^2 = .30$$

$$Y_4 = 2.74 + .005X_1 - .73^{**}X_5 - .0029X_7 + .00001X_7^2 \qquad R^2 = .39$$

$$Y_5 = 6.47 + .055^{**}X_1 - .60^{**}X_6 - .0014X_7 - .00001X_7^2 \qquad R^2 = .30$$

where:

Y_1, Y_2, Y_3, and Y_4 are changes in the number of servings from the milk, meat, fruit/vegetable, and bread/cereal food groups, respectively, between food readings.

Y_5 = change in the number of servings in all food groups between food readings.

X_1 = number of aide visits received between food readings.

X_2, X_3, X_4, X_5 = initial number of servings from the milk, meat, fruit/vegetable, and bread/cereal food groups, respectively.

X_6 = initial number of servings from all food groups.

X_7 = initial per capita income, dollars.

* Significant at 0.05-confidence level.
** Significant at 0.01-confidence level.

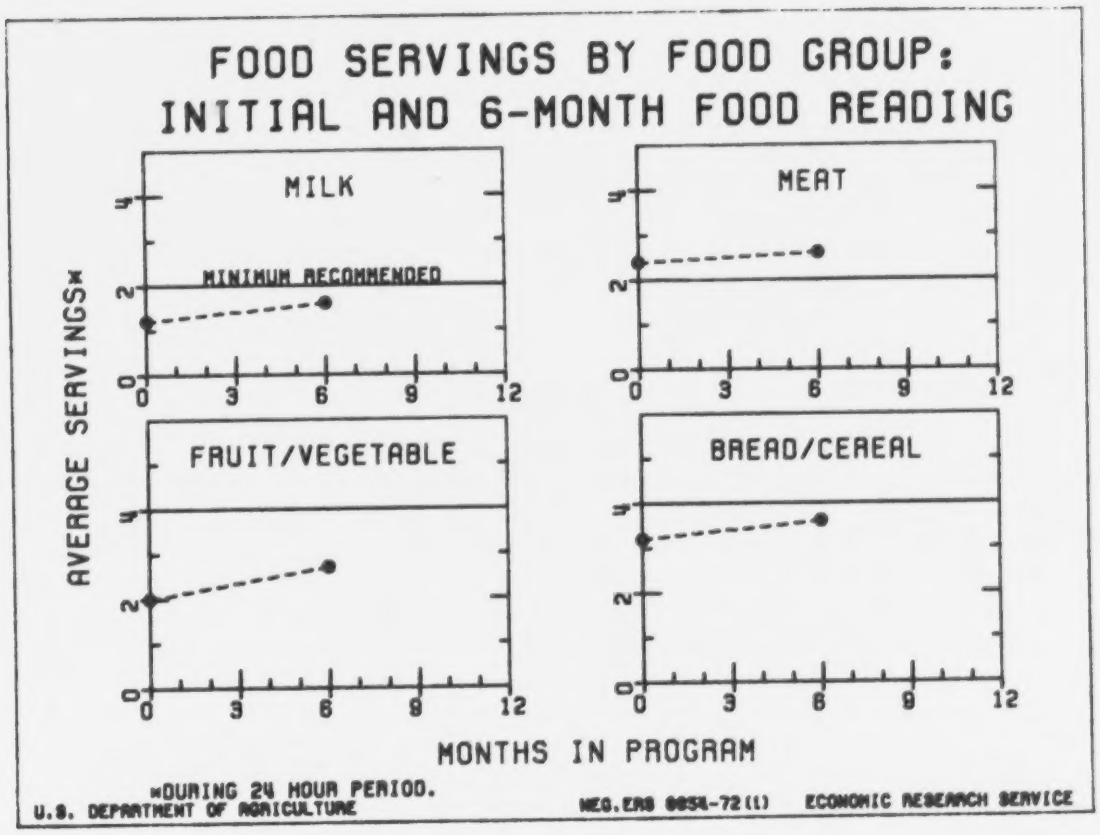

Figure 14

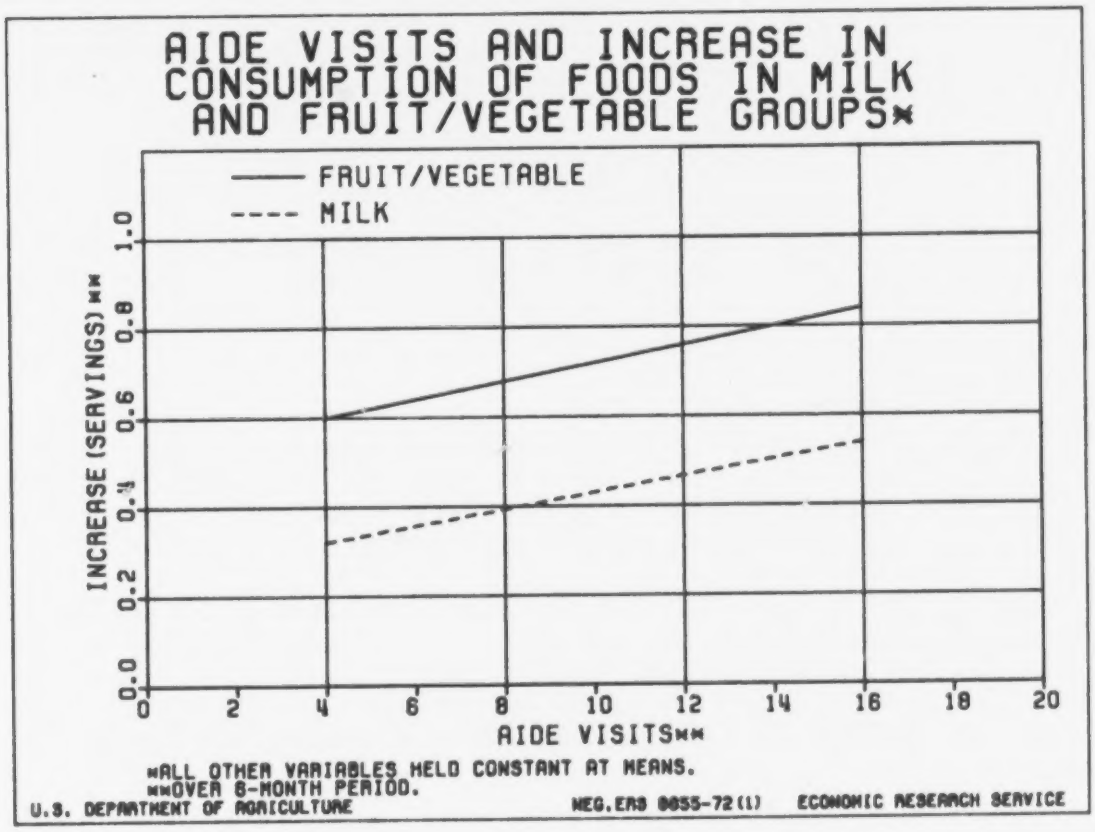

Figure 15

Although all 2-food-reading families had been in the program approximately 6 months, some homemakers received more visits from aides than others. Those visited more often and receiving more intensive instruction would be expected to show more improvement. Analyses indicated a significant relationship between intensity of instruction, as measured by number of aide visits, and increased consumption of foods in the two food groups furthest below the serving guide level--milk and fruit/vegetable (fig. 15). 23/ The average number of servings reported by homemakers in the meat and bread/cereal groups also increased at the second food reading. These increases, however, did not appear to be associated with frequency of aide visits.

Changes in Food Consumption by Selected Characteristics

Changes in food knowledge and consumption practices of homemakers with varying socioeconomic characteristics were compared to identify types of homemakers showing the most progress in diet improvement. Progress was measured in terms of the net increases in the number of homemakers reporting recommended number of servings over a 6-month period. For example, if the percentage of homemakers with less than $3,000 income having at least 4 servings of bread/cereal increased from 40 to 60 percent over the 6-month period, the net increase would be 20 homemakers per 100.

Residence

The residence category showing the most progress, as measured by the increase in number of homemakers with recommended number of servings, varied by food group (fig. 16 and table 23). The change in overall diet was similar for each class; however, urban homemakers showed more improvement in milk consumption and rural homemakers in bread/cereal consumption. Although differences were not large, the rural nonfarm category showed less change than either of the other two residence groups in both meat and fruit/vegetable consumption. Changes in food expenditures were similar for each residence group.

Welfare

Nonwelfare homemakers made relatively more progress in several food groups than welfare homemakers (fig. 17 and table 24). Income change between food readings was the same for both groups; however, families on welfare showed a greater increase in food expenditures than nonwelfare families.

Homemakers of welfare families showed more improvement in milk and meat consumption, partly because their initial consumption levels were lower. 24/ Progress was about the same for other food groups and for all food groups considered collectively (2,2,4,4). The EFNEP apparently increased food consumption and lessened the difference in consumption levels of welfare and nonwelfare homemakers.

23/ The relationships in figure 15 were derived from equations 1 and 3 in footnote 22.

24/ Initial consumption (or initial consumption level) refers to the percentage of homemakers with the recommended number of servings at the first food reading. Change or improvement in consumption (or change in consumption level) refers to the net change between food readings in the percentage of homemakers with the recommended number of servings.

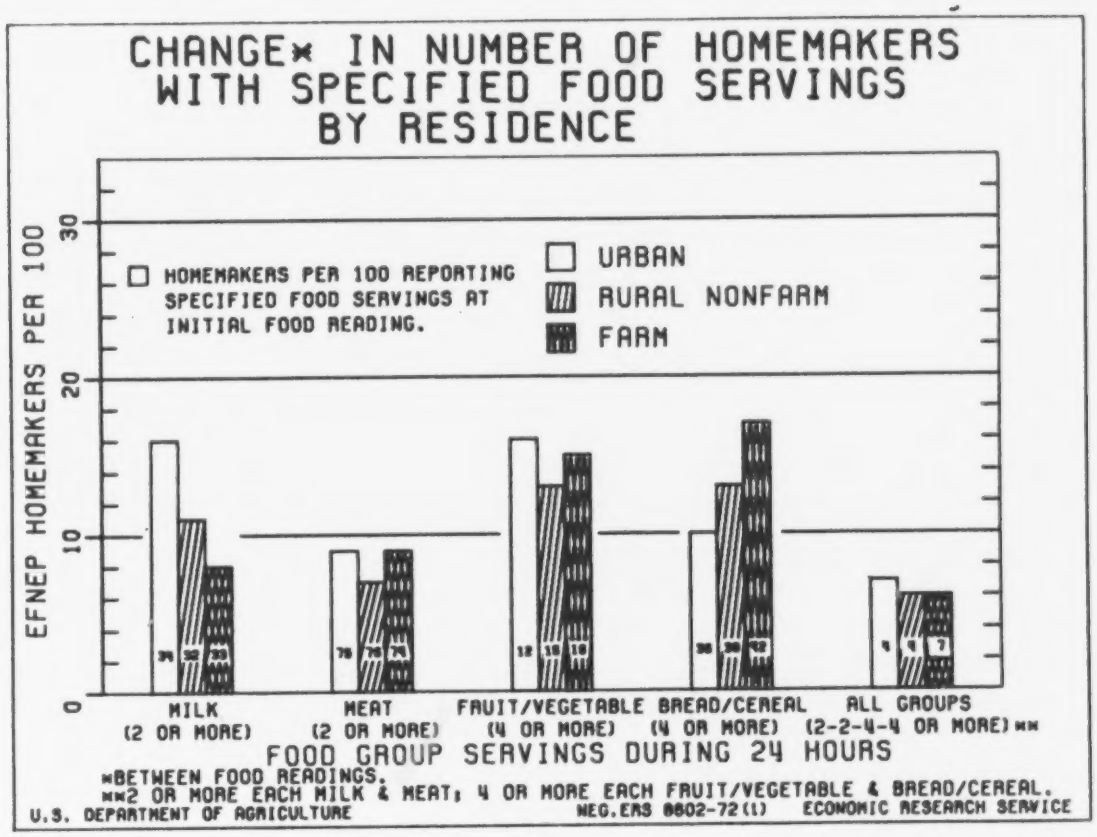
CHANGE* IN NUMBER OF HOMEMAKERS WITH SPECIFIED FOOD SERVINGS BY RESIDENCE
EFNEP HOMEMAKERS PER 100
0
10
20
30
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
URBAN
RURAL NONFARM
FARM
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)**
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
U.S. DEPARTMENT OF AGRICULTURE
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Figure 16

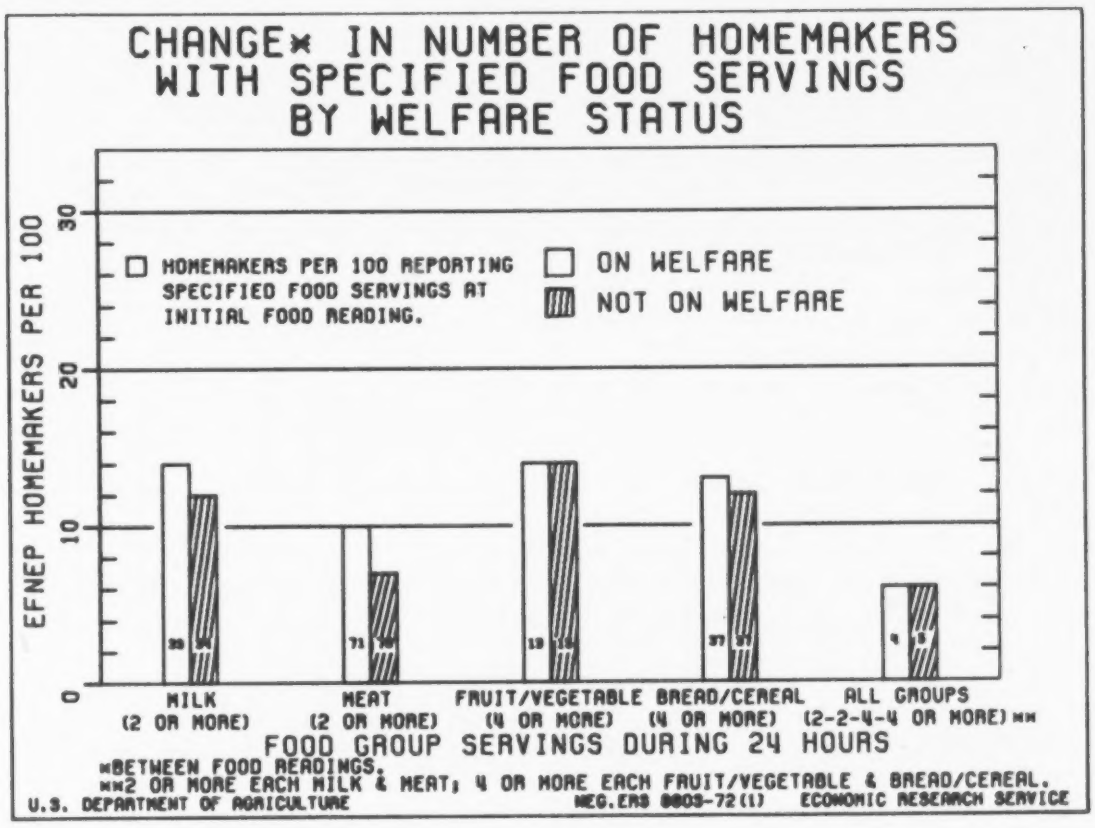
CHANGE* IN NUMBER OF HOMEMAKERS WITH SPECIFIED FOOD SERVINGS BY WELFARE STATUS
EFNEP HOMEMAKERS PER 100
0
10
20
30
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
ON WELFARE
NOT ON WELFARE
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)**
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 17

Education

Changes in food consumption practices were similar for each educational category considered (fig. 18 and table 25). However, homemakers with less education had lower initial levels of meat consumption and increased their consumption more than those with more education. Likewise, those with less than 4 years of education had a lower level of bread/cereal consumption initially and showed the greatest improvement in this group, reducing the differences in bread consumption levels among educational categories.

Income

There is a tendency for homemakers with less initial income to show more progress in food consumption (fig. 19 and table 26). One exception is homemakers of families in the lowest income class--less than $100 monthly. The lower income families also generally showed larger income and food expenditure increases. Greater progress by homemakers of families in the lower income classes tends to narrow the consumption gap between homemakers of higher and lower income families. The general inverse relationship between family income and change in the servings of foods in the milk, meat, and fruit/vegetable groups is due in large measure to the low initial consumption of foods in these groups by those with lower incomes.

In general, income does not appear to be an inflexible restraint to dietary improvement. Program achievements show that substantial increases and improvement in food consumption can be brought about even though incomes are low. While the low incomes of most families in the program must be recognized as a constraint to their achieving an adequate diet, results indicate that substantial dietary improvement can still be made.

U.S. Food Program Participation

To examine the effect of U.S. food programs on changes in EFNEP homemakers' food consumption practices over a 6-month period, families were divided into four groups on the basis of U.S. food program status at the time the 2 food readings were taken. The groups are: families in the food stamp program at both food readings, those in a donated food program at both food readings, those in neither food program during the 6 months, and those initially in neither food program but who joined either a food stamp or food distribution program. 25/ Families in the food stamp program at both food readings showed greater increases in income and food expenditures than other families.

The effect of participation in U.S. food programs on change in consumption practices varied by food group (fig. 20 and table 27). Homemakers in the food distribution program had the highest milk consumption initially and showed the least change, whereas homemakers that joined one of the food programs after the first food reading had the lowest milk consumption initially and showed the greatest increase.

Homemakers in the food stamp program at both food readings had the lowest level of meat consumption initially and showed the most progress over the 6-month period, partly because of increases in family income and food expenditures. Homemakers in the food stamp program at both readings and those in a U.S. food program at the second reading only showed relatively more change in bread/cereal consumption than other homemakers.

25/ Not included in the comparisons are 102 families that left a food assistance program between food readings.

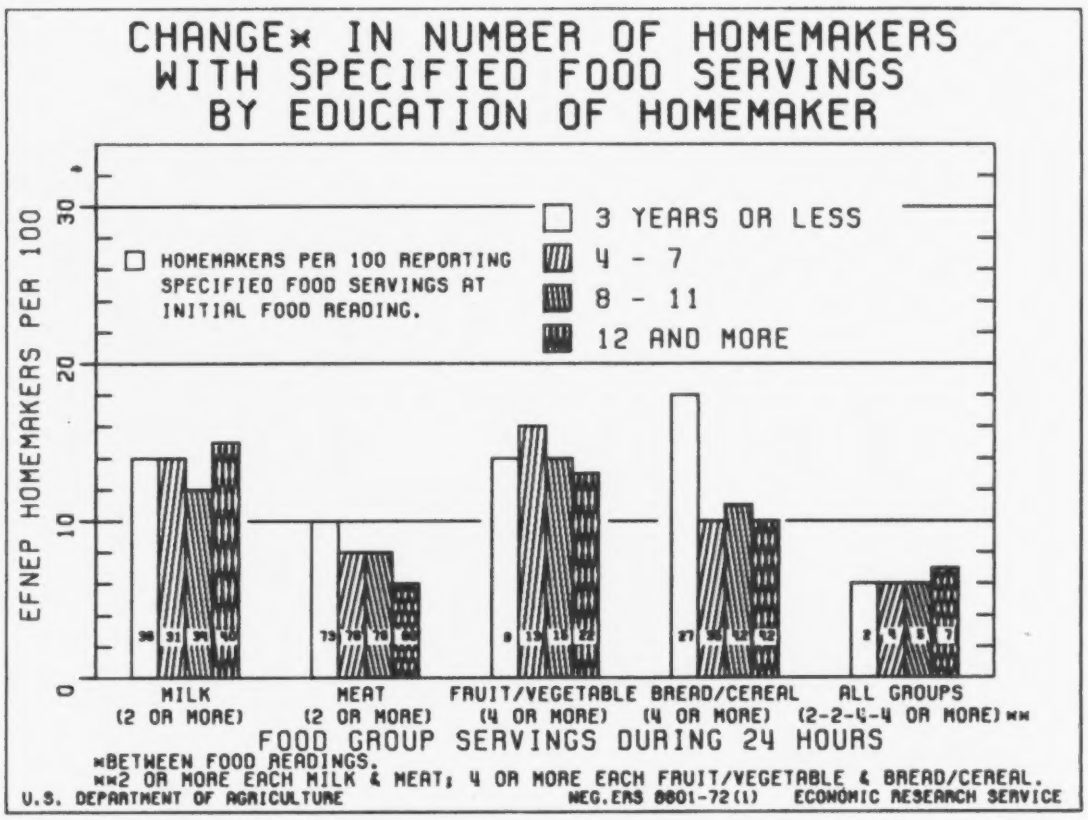
CHANGE* IN NUMBER OF HOMEMAKERS
WITH SPECIFIED FOOD SERVINGS
BY EDUCATION OF HOMEMAKER
EFNEP HOMEMAKERS PER 100
0
10
20
30
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
3 YEARS OR LESS
4 - 7
8 - 11
12 AND MORE
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)**
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 18

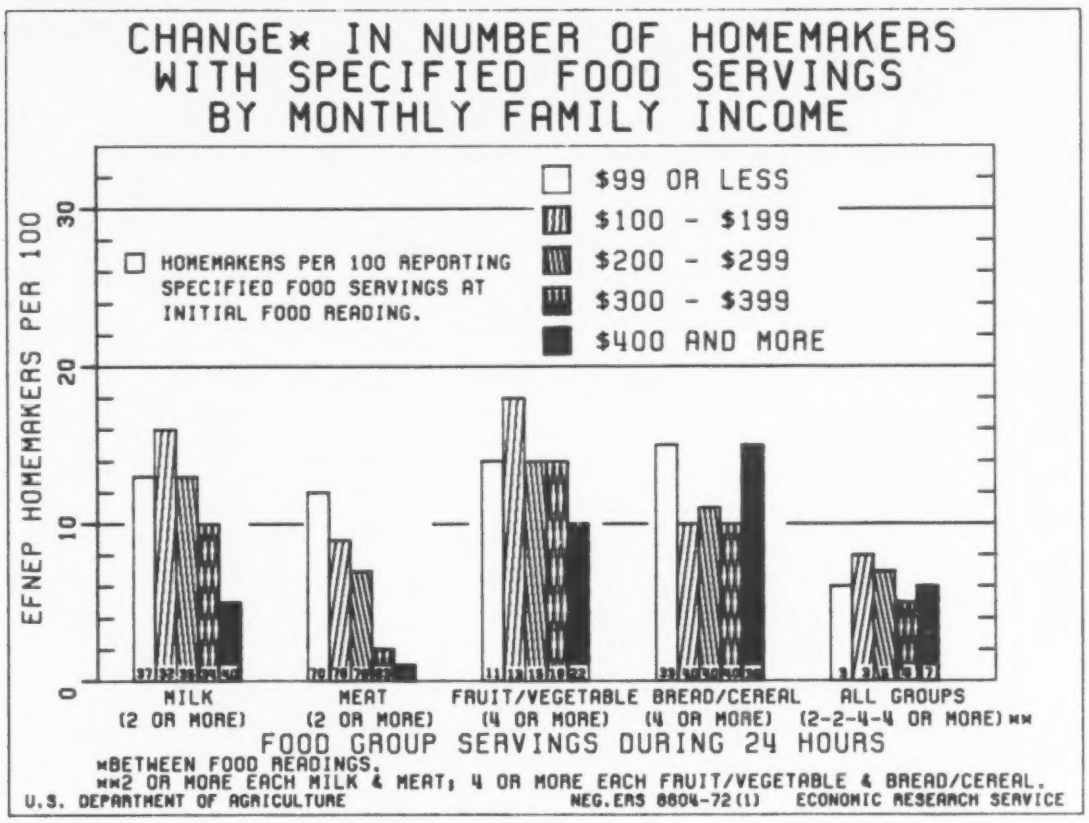
CHANGE* IN NUMBER OF HOMEMAKERS
WITH SPECIFIED FOOD SERVINGS
BY MONTHLY FAMILY INCOME
EFNEP HOMEMAKERS PER 100
0
10
20
30
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
$99 OR LESS
$100 - $199
$200 - $299
$300 - $399
$400 AND MORE
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)**
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 19

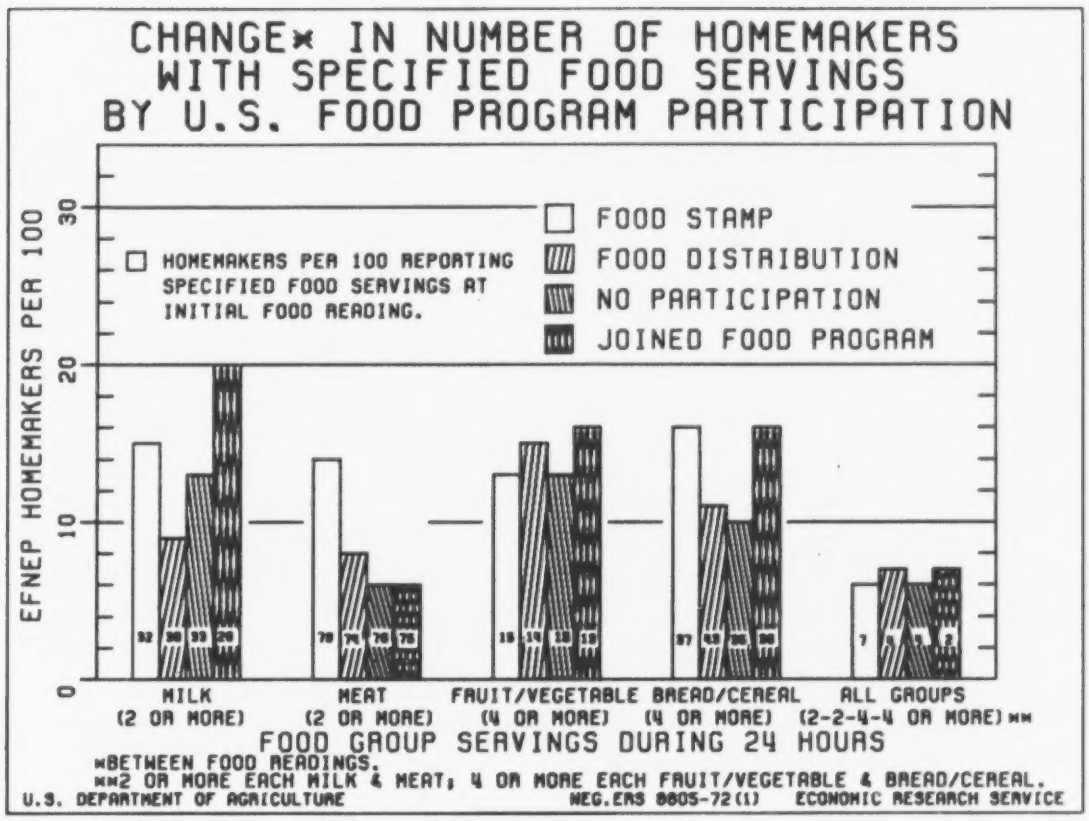
CHANGE* IN NUMBER OF HOMEMAKERS WITH SPECIFIED FOOD SERVINGS BY U.S. FOOD PROGRAM PARTICIPATION
EFNEP HOMEMAKERS PER 100
0
10
20
30
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
FOOD STAMP
FOOD DISTRIBUTION
NO PARTICIPATION
JOINED FOOD PROGRAM
32 30 33 20
70 75 78 75
18 14 13 13
37 43 35 38
7 9 9 7
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE) **
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 20

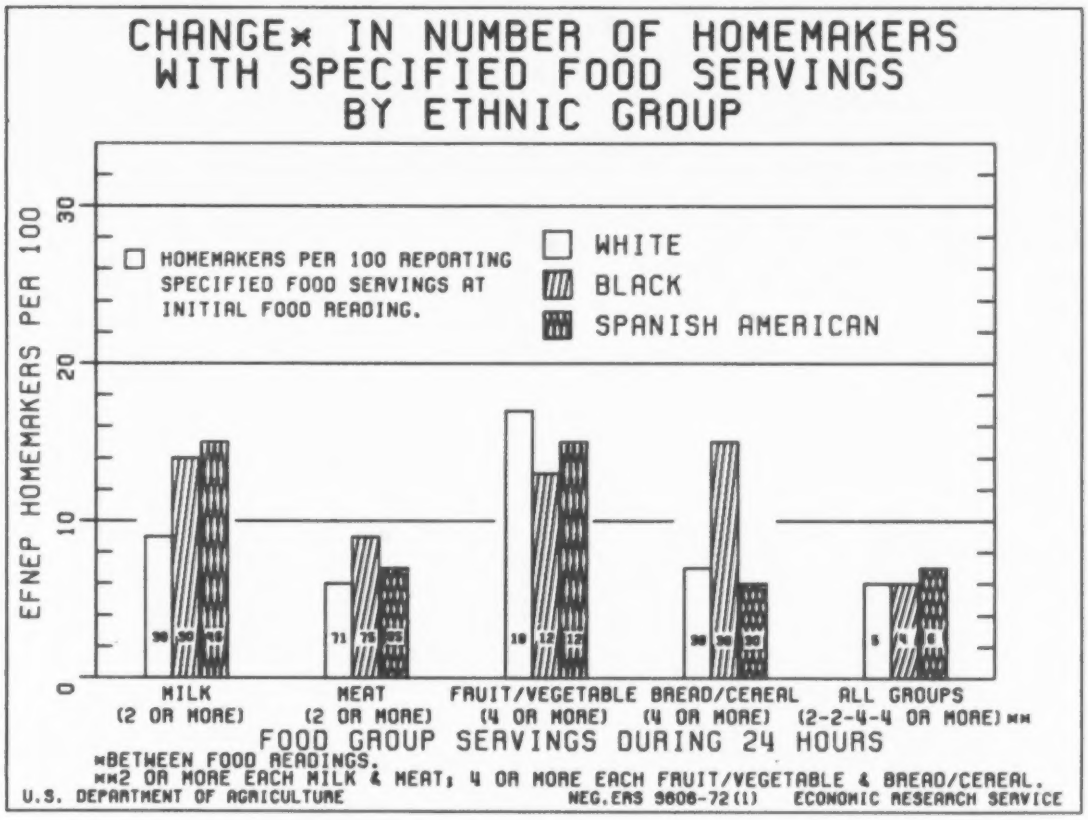
CHANGE* IN NUMBER OF HOMEMAKERS WITH SPECIFIED FOOD SERVINGS BY ETHNIC GROUP
EFNEP HOMEMAKERS PER 100
0
10
20
30
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
WHITE
BLACK
SPANISH AMERICAN
30 30 36
71 75 65
18 12 12
30 38 30
5 6 6
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE) **
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 21

Ethnic Characteristics

White families showed larger gains than other families in income and food expenditures. Changes in food consumption practices also differed somewhat according to the ethnic background of the homemakers (fig. 21 and table 28). In terms of overall diet (2,2,4,4), ethnic groups showed similar changes, although Spanish Americans showed slightly more improvement than other homemakers.

White homemakers showed less improvement than others in the consumption of milk products; black homemakers showed more progress in the consumption of foods from the meat and bread/cereal groups. Whites had higher levels initially and showed the most improvement in fruit/vegetables.

Age

Changes in consumption practices varied by age of homemaker but no consistent patterns were evident (fig. 22 and table 29). In the milk group, homemakers having low consumption levels initially tended to show more improvement, although not in all cases. Changes in the other food groups were mixed.

Family Size

In terms of overall diet adequacy, homemakers from families with 3 to 6 members showed the most improvement (fig. 23 and table 30). Homemakers of families with 9 or more members showed more improvement in bread/cereal consumption than other homemakers, and there was a tendency for larger families to show less improvement in fruit/vegetable consumption.

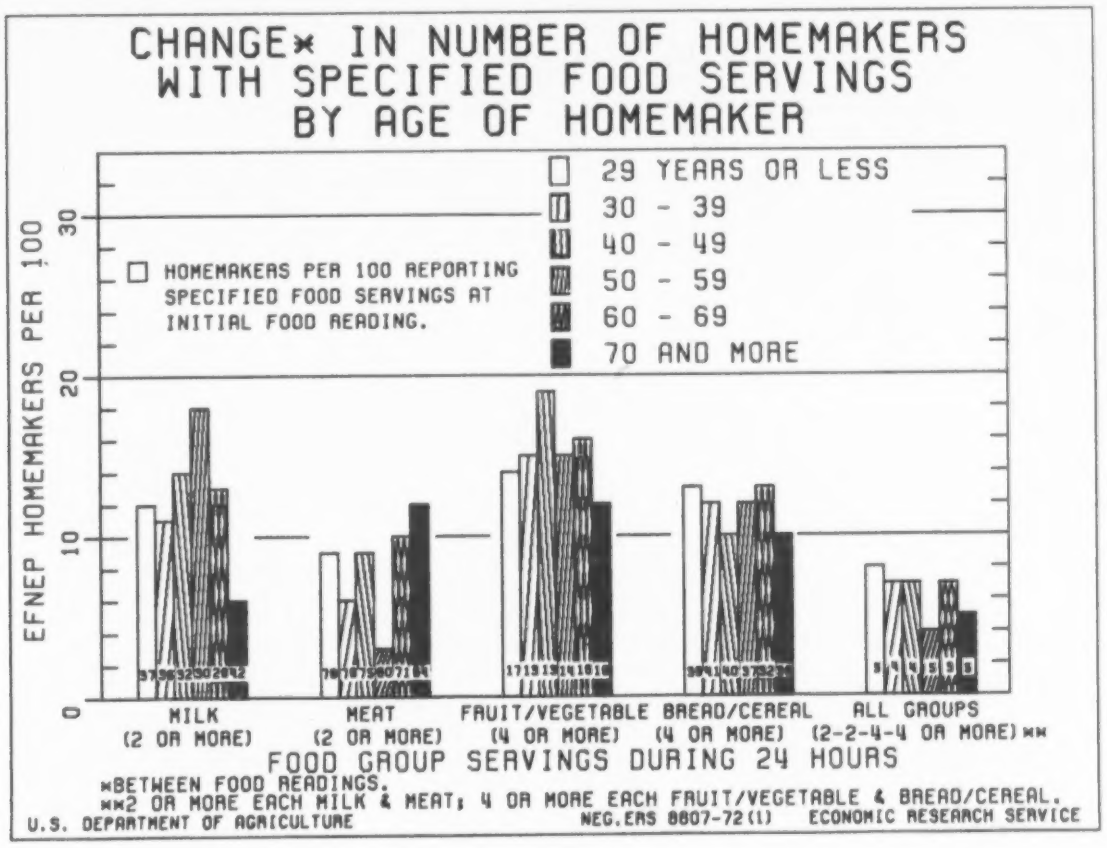
CHANGE* IN NUMBER OF HOMEMAKERS WITH SPECIFIED FOOD SERVINGS BY AGE OF HOMEMAKER
29 YEARS OR LESS
30 - 39
40 - 49
50 - 59
60 - 69
70 AND MORE
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
EFNEP HOMEMAKERS PER 100
0
10
20
30
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)**
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 22

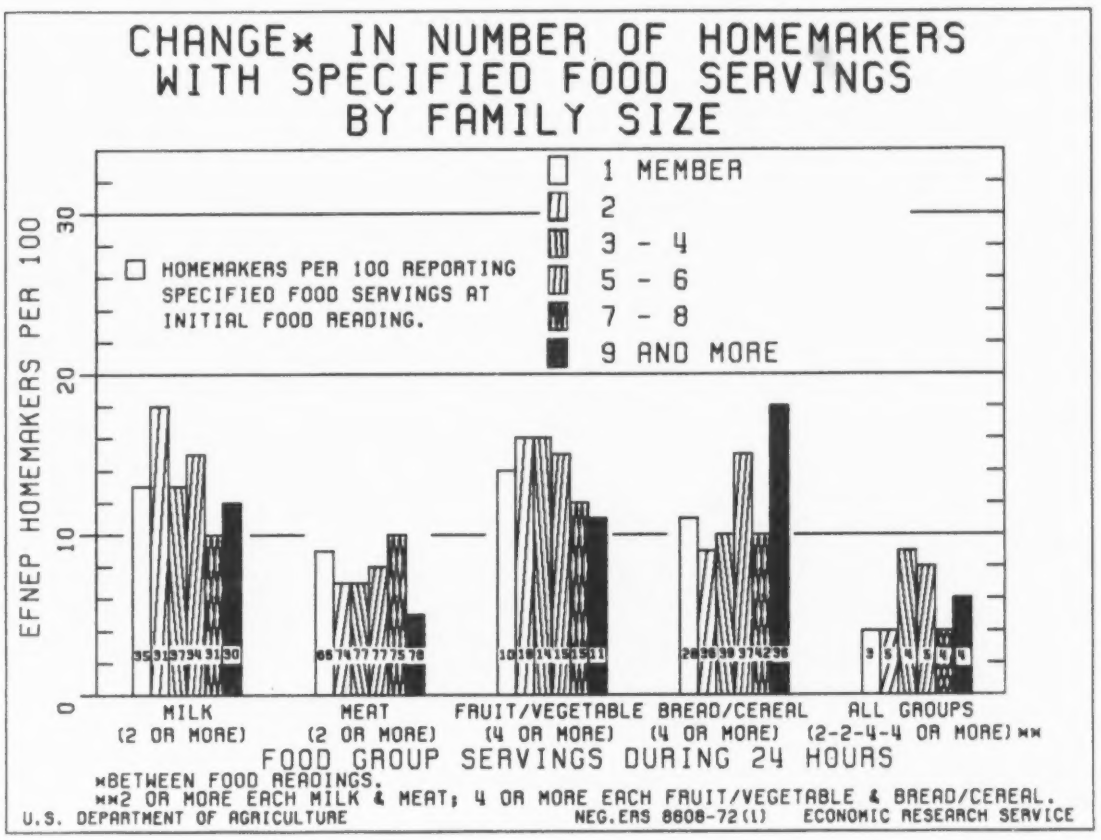
CHANGE* IN NUMBER OF HOMEMAKERS WITH SPECIFIED FOOD SERVINGS BY FAMILY SIZE
1 MEMBER
2
3 - 4
5 - 6
7 - 8
9 AND MORE
HOMEMAKERS PER 100 REPORTING SPECIFIED FOOD SERVINGS AT INITIAL FOOD READING.
EFNEP HOMEMAKERS PER 100
0
10
20
30
MILK (2 OR MORE)
MEAT (2 OR MORE)
FRUIT/VEGETABLE (4 OR MORE)
BREAD/CEREAL (4 OR MORE)
ALL GROUPS (2-2-4-4 OR MORE)**
FOOD GROUP SERVINGS DURING 24 HOURS
*BETWEEN FOOD READINGS.
**2 OR MORE EACH MILK & MEAT; 4 OR MORE EACH FRUIT/VEGETABLE & BREAD/CEREAL.
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Figure 23

Table 9.--Initial food readings: Food consumption practices and dietary knowledge of homemakers in EFNEP by program status at time sample was selected, 1969

Item	Program status		
	In program	Left program 1/	Total
	Percent		
Homemakers reporting servings			
Milk group			
1 or more	68	66	67
2 or more 2/	35	34	35
Meat group			
1 or more	96	95	96
2 or more 2/	78	79	78
Fruit/vegetable group			
1 or more	88	88	88
2 or more	63	64	63
4 or more 2/	19	17	18
Bread/cereal group			
1 or more	98	96	97
2 or more	89	87	88
4 or more 2/	38	39	38
1 or more, each food group	59	58	59
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal	5	5	5
Homemakers naming as necessary for health			
Milk	79	74	77
Meat	83	79	82
Fruit/vegetable	85	81	84
Bread/cereal	66	62	65
Each of the four food groups	53	50	52
	Number		
Homemakers reporting	6,783	2,641	9,424

1/ 83 percent of those leaving the EFNEP stayed in less than 6 months.
2/ Number of servings recommended in serving guide.

Table 10.--Initial food readings: Food consumption practices and dietary knowledge of homemakers by month entering into program, 1969

Item	Date homemaker entered program, 1969		
	January-March	April-June	July-September
	Percent		
Homemakers reporting servings			
Milk group			
1 or more	68	67	68
2 or more 1/	34	35	36
Meat group			
1 or more	95	97	96
2 or more 1/	77	80	79
Fruit/vegetable group			
1 or more	88	88	89
2 or more	63	65	62
4 or more 1/	17	20	20
Bread/cereal group			
1 or more	97	97	97
2 or more	89	88	86
4 or more 1/	39	38	37
1 or more, each food group	59	59	59
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal	5	5	5
Homemakers naming as necessary for health			
Milk	77	78	79
Meat	80	84	85
Fruit/vegetable	83	86	83
Bread/cereal	65	64	67
Each of the four food groups	51	53	53
	Number		
Homemakers reporting	5,200	2,626	1,407

1/ Number of servings recommended in serving guide.

Table 11.--Initial food consumption practices and food knowledge of homemakers by residence, 1969 1/

Item	Residence		
	Urban	Rural nonfarm	Farm
	Percent		
Homemakers reporting servings			
Milk group			
1 or more	67	67	69
2 or more 2/	35	34	35
Meat group			
1 or more	96	96	96
2 or more 2/	79	78	79
Fruit/vegetable group			
1 or more	88	88	91
2 or more	62	64	70
4 or more 2/	17	19	26
Bread/cereal group			
1 or more	97	97	99
2 or more	88	89	93
4 or more 2/	37	40	47
1 or more, each food group	59	58	62
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	5	6	8
Homemakers naming as necessary for health			
Milk	77	78	79
Meat	83	81	80
Fruit/vegetable	84	84	86
Bread/cereal	65	65	68
Each of the four food groups	51	52	56
	Dollars		
Average monthly family income and food expenditures 3/			
Income	234	209	182
Food expenditures	77	76	67
Per capita	16.0	15.5	12.2
	Percent		
Percentage of income for food expenditures	33	36	37
	Number		
Family size	4.8	4.9	5.5
Homemakers reporting	5,224	3,046	739

See footnotes at end of table 19.

Table 12.--Initial food consumption practices and food knowledge of homemakers by welfare status, 1969 1/

Item	Welfare status	
	On welfare	Not on welfare
	Percent	
Homemakers reporting servings		
Milk group		
1 or more	67	68
2 or more 2/	34	35
Meat group		
1 or more	94	96
2 or more 2/	74	80
Fruit/vegetable group		
1 or more	87	89
2 or more	61	64
4 or more 2/	16	20
Bread/cereal group		
1 or more	97	97
2 or more	88	89
4 or more 2/	37	39
1 or more, each food group	56	60
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	4	6
Homemakers naming as necessary for health		
Milk	75	78
Meat	80	82
Fruit/vegetable	83	85
Bread/cereal	64	65
Each of the four food groups	50	52
	Dollars	
Average monthly family income and food expenditures 3/		
Income	171	247
Food expenditures	66	82
Per capita	13.8	16.7
	Percent	
Percentage of income for food expenditures	39	33
	Number	
Family size	4.8	4.9
Homemakers reporting	2,984	6,110

See footnotes at end of table 19.

Table 13.--Initial food consumption practices and food knowledge of homemakers by education of homemaker, 1969 1/

Item	Years of education			
	Less than 4	4-7	8-11	12 and over
	Percent			
Homemakers reporting servings				
Milk group				
1 or more	64	64	68	73
2 or more 2/	31	31	35	41
Meat group				
1 or more	94	95	97	98
2 or more 2/	76	79	79	81
Fruit/vegetable group				
1 or more	81	87	88	93
2 or more	50	60	64	72
4 or more 2/	11	16	20	25
Bread/cereal group				
1 or more	97	97	98	98
2 or more	87	89	88	89
4 or more 2/	32	38	39	42
1 or more, each food group	49	54	61	67
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	3	4	6	7
Homemakers naming as necessary for health				
Milk	73	78	79	80
Meat	81	82	82	83
Fruit/vegetable	77	85	85	86
Bread/cereal	65	67	64	65
Each of the four food groups	46	52	52	56
	Dollars			
Average monthly family income and food expenditures 3/				
Income	159	181	235	304
Food expenditures	63	67	81	89
Per capita	14.3	14.0	15.6	18.5
	Percent			
Percentage of income for food expenditures	40	37	34	29
	Number			
Family size	4.4	4.8	5.2	4.8
Homemakers reporting	840	2,407	3,421	1,446

See footnotes at end of table 19.

Table 14.--Initial food consumption practices and food knowledge of homemakers by family income, 1969 1/

Item	Monthly income				
	Less than $100	$100-$199	$200-$299	$300-$399	$400 and more
	Percent				
Homemakers reporting servings					
Milk group					
1 or more	68	67	69	68	72
2 or more 2/	35	34	36	37	40
Meat group					
1 or more	94	96	96	98	99
2 or more 2/	74	77	80	83	84
Fruit/vegetable group					
1 or more	84	87	89	91	93
2 or more	58	61	64	69	74
4 or more 2/	15	16	19	21	28
Bread/cereal group					
1 or more	97	98	98	98	99
2 or more	88	89	89	88	91
4 or more 2/	35	38	40	40	45
1 or more, each food group	56	57	61	62	67
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	4	4	6	7	8
Homemakers naming as necessary for health					
Milk	78	78	81	81	82
Meat	81	84	86	84	84
Fruit/vegetable	85	85	86	88	87
Bread/cereal	67	67	68	65	65
Each of the four food groups	51	52	55	55	57
	Dollars				
Average monthly family income and food expenditures 3/					
Income	67	142	235	330	478
Food expenditures	33	61	86	105	123
Per capita	9.2	13.6	15.9	18.1	21.2
	Percent				
Percentage of income for food expenditures	49	43	37	32	26
	Number				
Family size	3.6	4.5	5.4	5.8	5.8
Homemakers reporting	1,541	2,276	1,988	1,183	1,043

See footnotes at end of table 19.

Table 15.--Initial food consumption practices and food knowledge of homemakers by family food expenditures, 1969 1/

Item	Monthly food expenditures			
	Less than $65	$65-$89	$90-$114	$115 and more
	Percent			
Homemakers reporting servings				
Milk group				
1 or more	67	68	69	70
2 or more 2/	34	34	38	40
Meat group				
1 or more	95	97	97	98
2 or more 2/	76	82	81	84
Fruit/vegetable group				
1 or more	88	89	89	90
2 or more	62	66	68	67
4 or more 2/	18	19	22	22
Bread/cereal group				
1 or more	98	98	97	98
2 or more	90	88	88	89
4 or more 2/	38	40	38	40
1 or more, each food group	57	61	61	62
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	4	6	6	7
Homemakers naming as necessary for health				
Milk	79	81	81	81
Meat	83	84	86	85
Fruit/vegetable	86	86	87	88
Bread/cereal	67	68	66	64
Each of the four food groups	54	56	54	53
	Dollars			
Average monthly family income and food expenditures 3/				
Income	146	238	284	347
Food expenditures	37	77	99	154
Per capita	9.7	15.1	19.4	23.0
	Percent			
Percentage of income for food expenditures	25	32	35	44
	Number			
Family size	3.8	5.1	5.6	6.7
Homemakers reporting	3,812	1,551	1,205	1,536

See footnotes at end of table 19.

Table 16.--Initial food consumption practices and food knowledge of homemakers by participation in U.S. food programs, 1969 1/

Item	U.S. food program participation		
	Food stamp	Food distribution	No participation
	Percent		
Homemakers reporting servings			
Milk group			
1 or more	68	69	67
2 or more 2/	37	35	35
Meat group			
1 or more	94	96	96
2 or more 2/	75	77	80
Fruit/vegetable group			
1 or more	88	87	89
2 or more	64	59	65
4 or more 2/	21	16	19
Bread/cereal group			
1 or more	97	98	97
2 or more	88	89	88
4 or more 2/	41	40	38
1 or more, each food group	59	59	59
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	7	4	5
Homemakers naming as necessary for health			
Milk	79	79	78
Meat	84	82	82
Fruit/vegetable	88	84	84
Bread/cereal	68	68	65
Each of the four food groups	57	54	52
	Dollars		
Average monthly family income and food expenditures 3/			
Income	198	161	246
Food expenditures	76	59	82
Per capita	13.8	11.8	17.4
	Percent		
Percentage of income for food expenditures	38	37	33
	Number		
Family size	5.5	5.0	4.7
Homemakers reporting	1,270	2,031	5,720

See footnotes at end of table 19.

Table 17.--Initial food consumption practices and food knowledge of homemakers by ethnic group, 1969 1/

Item	Ethnic group 4/		
	White	Black	Spanish American
	Percent		
Homemakers reporting servings			
Milk group			
1 or more	70	65	73
2 or more 2/	39	32	39
Meat group			
1 or more	95	96	98
2 or more 2/	73	79	87
Fruit/vegetable group			
1 or more	90	89	80
2 or more	72	62	51
4 or more 2/	25	16	14
Bread/cereal group			
1 or more	97	97	98
2 or more	88	89	88
4 or more 2/	39	39	34
1 or more, each food group	61	58	58
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	6	5	5
Homemakers naming as necessary for health			
Milk	75	79	79
Meat	79	82	87
Fruit/vegetable	82	87	77
Bread/cereal	57	70	64
Each of the four food groups	45	57	47
	Dollars		
Average monthly family income and food expenditures 3/			
Income	234	216	210
Food expenditures	79	72	86
Per capita	18.0	14.1	16.5
	Percent		
Percentage of income for food expenditures	34	33	41
	Number		
Family size	4.4	5.1	5.2
Homemakers reporting	2,854	5,011	1,344

Footnotes 1, 2, and 3 are at end of table 19.

4/ American Indians and other ethnic groups comprised less than 2 percent of the sample and are not included.

Table 18.--Initial food consumption practices and food knowledge of homemakers by age of homemaker, 1969 1/

Item	Years of age					
	Less than 30	30-39	40-49	50-59	60-69	70 and over
	Percent					
Homemakers reporting servings						
Milk group						
1 or more	69	68	68	66	67	69
2 or more 2/	36	37	33	33	32	38
Meat group						
1 or more	97	97	96	96	95	92
2 or more 2/	80	81	80	80	74	67
Fruit/vegetable group						
1 or more	88	88	88	89	88	90
2 or more	63	63	62	66	67	66
4 or more 2/	18	19	19	20	20	21
Bread/cereal group						
1 or more	98	98	97	98	97	96
2 or more	88	90	89	90	88	89
4 or more 2/	40	43	41	38	32	36
1 or more, each food group	60	59	60	59	58	59
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	5	6	6	4	4	6
Homemakers naming as necessary for health						
Milk	79	80	79	78	73	72
Meat	83	83	84	82	81	76
Fruit/vegetable	84	85	86	86	85	81
Bread/cereal	67	64	67	67	67	64
Each of the four food groups	54	51	55	54	50	49
	Dollars					
Average monthly family income and food expenditures 3/						
Income	250	255	235	184	146	112
Food expenditures	80	90	85	63	49	37
Per capita	17.0	14.1	14.2	16.2	18.8	19.5
	Percent					
Percentage of income for food expenditures	32	35	36	34	34	33
	Number					
Family size	4.7	6.4	6.0	3.9	2.6	1.9
Homemakers reporting	1,855	1,875	1,456	956	906	629

See footnotes at end of table 19.

Table 19.--Initial food consumption practices and food knowledge of homemakers by family size, 1969 1/

Item	Number in family					
	1	2	3-4	5-6	7-8	9 and more
	Percent					
Homemakers reporting servings						
Milk group						
1 or more	68	68	69	69	65	64
2 or more 2/	35	33	37	36	34	31
Meat group						
1 or more	93	95	97	96	96	97
2 or more 2/	70	74	81	80	80	81
Fruit/vegetable group						
1 or more	88	89	89	88	88	87
2 or more	63	69	75	64	60	58
4 or more 2/	17	23	20	19	16	15
Bread/cereal group						
1 or more	96	96	98	98	98	98
2 or more	86	88	89	88	89	90
4 or more 2/	32	35	38	40	42	41
1 or more, each food group	59	59	61	60	56	55
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	4	5	5	6	5	5
Homemakers naming as necessary for health						
Milk	75	74	77	78	79	79
Meat	78	82	82	82	84	81
Fruit/vegetable	82	84	84	83	86	84
Bread/cereal	66	64	65	64	67	65
Each of the four food groups	51	51	52	51	54	53
	Dollars					
Average monthly family income and food expenditures 3/						
Income	110	174	226	252	252	256
Food expenditures	36	53	72	87	94	103
Per capita	36.0	26.5	20.6	15.8	12.7	10.0
	Percent					
Percentage of income for food expenditures	33	30	32	35	37	40
	Number					
Family size	1.0	2.0	3.5	5.5	7.4	10.3
Homemakers reporting	899	1,371	2,527	2,238	1,391	1,084

1/ Based on sample of 9,515 EFNEP homemakers.
2/ Number of servings recommended in serving guide.
3/ Income is before-tax estimate. Food expenditure estimates do not include value of foods from home garden, donated foods, or value of bonus food stamps. The income and food expenditure estimates showed considerable variation. The standard deviations of these measures by selected characteristics are given in table 31.

Table 20.--Food consumption practices of homemakers naming or not naming a food group in response to question: "What food and drink do you think people should have to keep healthy?"

Item	Homemakers naming				Homemakers not naming			
	Milk	Meat	Fruit/ veg.	Bread/ cereal	Milk	Meat	Fruit/ veg.	Bread/ cereal
	Percent							
Homemakers reporting servings 1/								
1 or more	71	97	89	98	57	92	82	96
2 or more	38	80	65	91	24	71	54	84
3 or more	15	48	57	71	9	38	29	61
4 or more	5	20	19	41	2	16	15	33
	Number							
Homemakers reporting	7,350	7,758	7,980	6,164	2,165	1,757	1,535	3,351

1/ For respective food groups.

Table 21.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers, 1969 1/

Item	Food reading		Change
	Initial	6 month	
	Homemakers per 100		
Homemakers reporting servings			
Milk group			
1 or more	67	78	11
2 or more 2/	34	47	13
Meat group			
1 or more	95	97	2
2 or more 2/	75	83	8
Fruit/vegetable group			
1 or more	87	93	6
2 or more	60	74	14
4 or more 2/	14	28	14
Bread/cereal group			
1 or more	98	99	1
2 or more	90	94	4
4 or more 2/	37	49	12
1 or more, each food group	57	72	15
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	4	11	7
Homemakers naming as necessary for health			
Milk	77	88	11
Meat	81	91	10
Fruit/vegetable	84	92	8
Bread/cereal	66	78	12
Each of the four food groups	52	69	17
	Number		
Homemakers reporting	2,843		

1/ Based on sample of 2,843 families.
2/ Number of servings recommended in serving guide.

Table 22.--Average food servings of homemakers at initial and 6-month food readings, 1969

Item	Food reading		Change between periods
	Initial	6 month	
	Average		Percent
Servings:			
Milk group	1.2	1.6	0.4*	33
Meat group	2.4	2.6	.2*	8
Fruit/vegetable group	2.0	2.7	.7*	35
Bread/cereal group	3.2	3.6	.4*	13
	Dollars		
Average monthly family income	194.3	204.5	10.2	5
Average monthly family food expenditures	70.1	73.3	3.2	5
	Percent		
Percentage of income for food expenditures	36	36		
	Number		
Homemakers reporting	2,843		

* The number of servings at the 6-month food reading is significantly different from the number at the initial food reading. The difference is significant at the 0.01-confidence level.

Table 23.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by residence, 1969 1/

Item	Residence								
	Urban			Rural nonfarm			Farm		
	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2	
	Homemakers per 100								
Homemakers reporting servings									
Milk group, 2 or more 2/	34	50	16	32	43	11	33	41	8
Meat group, 2 or more 2/	75	84	9	76	83	7	74	83	9
Fruit/vegetable group, 4 or more 2/	12	28	16	16	29	13	16	31	15
Bread/cereal group, 4 or more 2/	36	46	10	38	51	13	42	59	17
1 or more, each food group	57	75	18	56	69	13	59	67	8
2 or more each, milk and meat and 4 or more each, fruit/vegetable and bread/cereal 2/	4	11	7	4	10	6	7	13	6
Homemakers naming as necessary for health									
Milk	77	87	10	78	89	11	77	90	13
Meat	83	91	8	80	92	12	76	92	16
Fruit/vegetable	83	91	8	84	94	10	86	94	8
Bread/cereal	65	76	11	66	79	13	68	84	16
Each of the four food groups	51	68	17	53	69	16	54	75	21
	Dollars								
Average monthly family income and food expenditures 3/									
Income	204	213	9	186	199	13	173	185	12
Food expenditures	70	73	3	71	74	3	67	70	3
Per capita	14.3	14.9	.6	13.9	14.5	.6	11.4	11.9	.5
	Percent								
Percentage of income for food expenditures	34	34		38	37		39	38	
	Number								
Family size	4.9			5.1			5.9		
Homemakers reporting	1,440			1,007			263		

See footnotes at end of table 30.

Table 24.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by welfare status, 1969 1/

Item	Welfare status					
	On welfare			Not on welfare		
	Food reading		Change	Food reading		Change
	1	2		1	2	
	Homemakers per 100					
Homemakers reporting servings						
Milk group, 2 or more 2/	33	47	14	34	46	12
Meat group, 2 or more 2/	71	81	10	78	85	7
Fruit/vegetable group, 4 or more 2/	13	27	14	15	29	14
Bread/cereal group, 4 or more 2/	37	50	13	37	49	12
1 or more, each food group	54	70	16	57	73	16
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	4	10	6	5	11	6
Homemakers naming as necessary for health						
Milk	74	87	13	79	88	9
Meat	78	91	13	82	91	9
Fruit/vegetable	82	92	10	84	93	9
Bread/cereal	66	78	12	66	77	11
Each of the four food groups	51	68	17	52	69	17
	Dollars					
Average monthly family income and food expenditures 3/						
Income	149	160	11	218	229	11
Food expenditures	58	63	5	77	79	2
Per capita	11.6	12.6	1.0	15.1	15.5	.4
	Percent					
Percentage of income for food expenditures	39	39		35	34	
	Number					
Family size	5.0			5.1		
Homemakers reporting	935			1,804		

See footnotes at end of table 30.

Table 25.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by education of homemaker, 1969 1/

Item	Years of education											
	Less than 3			4 - 7			8 - 11			12 and more		
	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2		1	2	
	Homemakers per 100											
Homemakers reporting servings												
Milk group, 2 or more 2/	36	50	14	31	45	14	34	46	12	40	55	15
Meat group, 2 or more 2/	73	83	10	76	84	8	76	84	8	80	86	6
Fruit/vegetable group, 4 or more 2/	9	23	14	13	29	16	15	29	14	22	35	13
Bread/cereal group, 4 or more 2/	27	45	18	35	45	10	42	53	11	42	52	10
1 or more, each food group	47	70	23	54	72	18	61	72	11	63	79	16
2 or more each, milk and meat and 4 or more each, fruit/vegetable and bread/cereal 2/	2	8	6	4	10	6	5	11	6	7	14	7
Homemakers naming as necessary for health												
Milk	70	83	13	78	88	10	80	90	10	82	89	7
Meat	79	91	12	82	92	10	81	91	10	83	92	9
Fruit/vegetable	78	90	12	86	94	8	84	93	9	88	93	5
Bread/cereal	64	74	10	68	81	13	66	78	12	67	74	7
Each of the four food groups	44	64	20	52	71	19	53	70	17	55	69	14
	Dollars											
Average monthly family income and food expenditures 3/												
Income	134	145	11	168	175	7	210	223	13	271	287	16
Food expenditures	57	61	4	65	69	4	74	77	3	87	87	0
Per capita	13.9	14.9	1.0	13.3	14.1	.8	13.7	14.3	.6	17.1	17.1	0
	Percent											
Percentage of income for food expenditures	43	42		39	39		35	35		32	30	
	Number											
Family size	4.1			4.9			5.4			5.1		
Homemakers reporting	267			860			1,021			350		

See footnotes at end of table 30.

Table 26.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by family income, 1969 1/

Item	Monthly income														
	Less than $100			$100-$199			$200-$299			$300-$399			$400 and more		
	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2		1	2		1	2	
	Homemakers per 100														
Homemakers reporting servings															
Milk group, 2 or more 2/	37	50	13	32	48	16	35	48	13	34	44	10	40	45	5
Meat group, 2 or more 2/	70	82	12	76	85	9	78	85	7	83	85	2	85	86	1
Fruit/vegetable group, 4 or more 2/	11	25	14	13	31	18	15	29	14	19	33	14	22	32	10
Bread/cereal group, 4 or more 2/	33	48	15	40	50	10	40	51	11	40	50	10	39	54	15
1 or more, each food group	57	73	16	54	71	17	62	74	12	62	73	11	64	78	14
2 or more each, milk and meat and 4 or more each, fruit/ vegetable and bread/cereal 2/	3	9	6	3	11	8	5	12	7	6	11	5	7	13	6
Homemakers naming as necessary for health															
Milk	76	87	11	78	88	10	81	90	9	76	91	15	80	89	9
Meat	80	91	11	83	91	8	85	93	8	81	92	11	82	89	7
Fruit/vegetable	83	93	10	85	93	8	86	94	8	84	92	8	84	90	6
Bread/cereal	70	80	10	69	80	11	67	80	13	63	78	15	61	72	11
Each of the four food groups	51	68	17	55	72	17	53	71	18	51	71	20	50	68	18
	Dollars														
Average monthly family income and food expenditures 3/															
Income	66	93	27	142	158	16	235	241	6	327	324	-3	465	435	-30
Food expenditures	32	43	11	61	65	4	87	87	0	100	100	0	122	117	-5
Per capita	8.4	11.3	2.9	12.7	13.5	.8	15.0	15.0	0	16.9	16.9	0	19.7	18.9	-.8
	Percent														
Percentage of income for food expenditures	48	46		43	41		37	36		31	31		26	27	
	Number														
Family size	3.8			4.8			5.8			5.9			6.2		
Homemakers reporting	610			762			609			301			204		

See footnotes at end of table 30.

Table 27.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by participation in U.S. food programs, 1969 1/

Item	U.S. food program participation											
	Food stamp			Food distribution			Joined food program 4/			No participation		
	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2		1	2	
	Homemakers per 100											
Homemakers reporting servings												
Milk group, 2 or more 2/	32	47	15	38	47	9	28	48	20	33	46	13
Meat group, 2 or more 2/	70	84	14	74	82	8	75	81	6	78	84	6
Fruit/vegetable group, 4 or more 2/	15	28	13	14	29	15	13	29	16	15	28	13
Bread/cereal group, 4 or more 2/	37	53	16	43	54	11	36	52	16	35	45	10
1 or more, each food group	50	70	20	61	72	11	56	73	17	57	72	15
2 or more each, milk and meat and 4 or more each, fruit/vegetable and bread/cereal 2/	7	13	6	4	11	7	2	9	7	4	10	6
Homemakers naming as necessary for health												
Milk	77	89	12	80	86	6	77	89	12	78	89	11
Meat	79	90	11	82	91	9	83	92	9	81	91	10
Fruit/vegetable	81	93	12	86	91	5	83	95	12	84	93	9
Bread/cereal	63	76	13	73	80	7	66	84	18	65	77	12
Each of the four food groups	53	68	15	56	70	14	52	77	25	50	68	18
	Dollars											
Average monthly family income and food expenditures 3/												
Income	156	168	12	148	158	10	179	176	-3	226	233	7
Food expenditures	65	73	8	56	59	3	63	64	1	79	80	1
Per capita	11.0	12.4	1.4	11.2	11.8	.6	11.7	11.9	.2	16.5	16.7	.2
	Percent											
Percentage of income for food expenditures	42	43		38	37		35	36		35	34	
	Number											
Family size	5.9			5.0			5.4			4.8		
Homemakers reporting	325			660			247			1,413		

Footnotes 1, 2, and 3 are at end of table 30.

4/ Was not participating in a U.S. food program at the time of food reading 1, but was enrolled in either the food stamp or food distribution programs at food reading 2.

Table 28.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by ethnic group, 1969 1/

Item	Ethnic group								
	White			Black			Spanish American		
	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2	
	Homemakers per 100								
Homemakers reporting servings									
Milk group, 2 or more 2/	38	47	9	30	44	14	46	61	15
Meat group, 2 or more 2/	71	77	6	75	84	9	85	92	7
Fruit/vegetable group, 4 or more 2/	19	36	17	12	25	13	12	27	15
Bread/cereal group, 4 or more 2/	39	46	7	38	53	15	30	36	6
1 or more, each food group	59	71	12	55	71	16	60	80	20
2 or more each, milk & meat and 4 or more each, fruit/ vegetable & bread/cereal 2/	5	11	6	4	10	6	6	13	7
Homemakers naming as necessary for health									
Milk	76	86	10	78	88	10	78	88	10
Meat	78	89	11	81	90	9	88	97	9
Fruit/vegetable	82	91	9	86	94	8	78	90	12
Bread/cereal	55	71	16	71	81	10	66	76	10
Each of the four food groups	43	62	19	57	73	16	46	64	18
	Dollars								
Average monthly family income and food expenditures 3/									
Income	207	220	13	192	202	10	174	179	5
Food expenditures	73	78	5	66	69	3	80	83	3
Per capita	16.6	17.7	1.1	12.5	13.0	.5	16.3	16.9	.6
	Percent								
Percentage of income for food expenditures	35	35		34	34		46	46	
	Number								
Family size	4.4			5.3			4.9		
Homemakers reporting	715			1,755			324		

See footnotes at end of table 30.

Table 29.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by age of homemaker, 1969 1/

Item	Years of age																	
	Less than 30			30-39			40-49			50-59			60-69			70 and more		
	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2		1	2		1	2		1	2	
	Homemakers per 100																	
Homemakers reporting servings																		
Milk group, 2 or more 2/	37	49	12	36	47	11	32	46	14	30	48	18	29	42	13	42	48	6
Meat group, 2 or more 2/	78	87	9	79	85	6	75	84	9	80	83	3	71	81	10	64	76	12
Fruit/vegetable group, 4 or more 2/	17	31	14	13	28	15	13	32	19	14	29	15	16	32	16	16	28	12
Bread/cereal group, 4 or more 2/	39	52	13	41	53	12	40	50	10	37	49	12	32	45	13	36	46	10
1 or more, each food group	62	75	13	54	73	19	58	70	12	57	73	16	58	70	12	59	75	16
2 or more each, milk and meat and 4 or more each, fruit/vegetable and bread/cereal 2/	5	13	8	4	11	7	4	11	7	5	9	4	3	10	7	5	10	5
Homemakers naming as necessary for health																		
Milk	80	89	9	78	91	13	79	90	11	78	88	10	72	85	13	75	83	8
Meat	82	90	8	81	93	12	84	93	9	81	91	10	81	93	12	78	88	10
Fruit/vegetable	86	92	6	82	94	12	85	96	11	86	93	7	87	93	6	80	91	11
Bread/cereal	70	79	9	61	80	19	68	80	12	70	80	10	67	83	16	66	70	4
Each of the four food groups	55	71	16	47	73	26	56	72	16	56	70	14	48	71	23	50	58	8
	Dollars																	
Average monthly family income and food expenditures 3/																		
Income	223	236	13	234	247	13	201	216	15	169	175	6	138	142	4	110	109	-1
Food expenditures	76	80	4	86	89	3	78	80	2	61	62	1	46	51	5	33	36	3
Per capita	15.5	16.3	.8	12.6	13.1	.5	12.8	13.1	.3	14.5	14.8	.3	16.4	18.2	1.8	17.4	18.9	1.5
	Percent																	
Percentage of income for food expenditures	34	34		37	36		39	37		36	35		33	36		30	33	
	Number																	
Family size	4.9			6.8			6.1			4.2			2.8			1.9		
Homemakers reporting	476			594			473			324			289			249		

See footnotes at end of table 30.

Table 30.--Initial, 6-month, and change in food consumption practices and food knowledge of homemakers by family size, 1969 1/

Item	Number in family																	
	1			2			3-4			5-6			7-8			9 and more		
	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change	Food reading		Change
	1	2		1	2		1	2		1	2		1	2		1	2	
	Homemakers per 100																	
Homemakers reporting servings																		
Milk group, 2 or more 2/	35	48	13	31	49	18	37	50	13	34	49	15	31	41	10	30	42	12
Meat group, 2 or more 2/	66	75	9	74	81	7	77	84	7	77	85	8	75	85	10	78	83	5
Fruit/vegetable group, 4 or more 2/	10	24	14	16	32	16	14	30	16	15	30	15	15	27	12	11	22	11
Bread/cereal group, 4 or more 2/	28	39	11	36	45	9	39	49	10	37	52	15	42	52	10	36	54	18
1 or more, each food group	59	71	12	56	72	16	61	75	14	58	71	13	51	70	19	54	69	15
2 or more each, milk and meat and 4 or more each, fruit/vegetable and bread/cereal 2/	3	7	4	5	9	4	4	13	9	5	13	8	4	8	4	4	10	6
Homemakers naming as necessary for health																		
Milk	78	80	2	75	85	10	75	89	14	79	90	11	78	89	11	80	89	9
Meat	79	86	7	84	92	8	80	90	10	81	92	11	80	90	10	82	93	11
Fruit/vegetable	83	90	7	86	92	6	84	92	8	83	94	11	85	93	8	84	94	10
Bread/cereal	71	77	6	68	79	11	64	77	13	64	78	14	63	77	14	69	80	11
Each of the four food groups	52	64	12	54	67	13	50	69	19	51	70	19	49	69	20	57	72	15
	Dollars																	
Average monthly family income and food expenditures 3/																		
Income	99	104	5	150	151	1	199	204	5	221	234	13	221	237	16	223	245	22
Food expenditures	33	32	-1	47	50	3	67	70	3	80	84	4	85	88	3	92	97	5
Per capita	33.0	32.0	-1.0	23.5	25.0	1.5	19.1	20.0	.9	14.5	15.3	.8	11.5	11.9	.4	8.8	9.3	.5
	Percent																	
Percentage of income for food expenditures	33	31		31	33		34	34		36	36		38	37		41	40	
	Number																	
Family size	1.0			2.0			3.5			5.5			7.4			10.4		
Homemakers reporting	275			375			727			627			443			396		

1/ Based on sample of 2,843 EFNEP homemakers.
2/ Number of servings recommended in serving guide.
3/ Income is before-tax estimate. Food expenditure estimates do not include values of foods from home gardens, donated foods, or value of bonus food stamps. The income and food expenditure estimates showed considerable variation. Standard deviations of these measures by selected characteristics are given in table 31.

Table 31.--Standard deviations associated with average monthly income and average monthly food expenditures of sample families by selected socioeconomic characteristics

Item	All families 1/		Families of homemakers with 2 food readings 2/			
	Initial food reading		Food reading 1		Food reading 2	
	Income	Food expenditures	Income	Food expenditures	Income	Food expenditures
	Dollars					
Residence						
Urban	138	48	122	50	125	43
Rural nonfarm	136	53	118	47	126	46
Farm	125	47	115	49	116	43
Welfare status						
On welfare	102	45	89	40	93	41
Not on welfare	146	53	128	52	133	45
Education of homemaker						
Less than 4 years	109	43	92	42	91	41
4-7	115	46	110	45	112	46
8-11	133	48	114	43	121	42
12 and more	152	58	133	69	141	46
Food program status						
Food stamp	126	48	100	38	100	43
Food distribution	101	42	93	43	98	41
No participation	141	53	128	53	132	44
Joined food program			115	46	104	43
Ethnic group						
White	142	53	123	47	126	45
Black	136	48	120	49	124	43
Spanish American	127	54	111	46	115	43
Age of homemaker						
Less than 30 years	138	48	119	39	122	41
30-39	140	52	129	51	133	46
40-49	137	55	123	61	130	47
50-59	121	40	104	38	111	35
60-69	97	47	89	36	83	33
70 and more	74	24	74	22	54	23
Family size						
1 member	91	51	74	61	74	20
2	113	34	98	33	96	31
3-4	134	39	120	37	122	36
5-6	138	51	118	46	126	42
7-8	137	50	125	47	126	46
9 and more	140	61	121	53	123	51

1/ Average monthly incomes and average monthly food expenditures shown in tables 11-19.
2/ Average monthly incomes and average monthly food expenditures shown in tables 23-30.

APPENDIX I--SAMPLING PROCEDURE

The sample families were selected from 390 EFNE Program units that had families with 2 food readings as of October 1969. A two-stage sampling procedure was used. At the first level program units were selected; then families were selected from these units. Differential sampling rates were used for both the unit and family selection.

The 390 units were stratified by size (number of families in unit) into 5 groups. Stratum 1 had units with 700 and more families and stratum 5 had units with less than 100 families. Different sampling rates were used to select units from each stratum. Large units, which were fewer, were sampled at a higher rate than the more numerous smaller units. One hundred thirty-four of the 390 units were selected.

The rate at which families were selected from the units depended upon stratum classification. The family sampling rate for a given stratum was such that the overall sampling rate was 1/12. Approximately 10,500 families were selected in this manner. The unit and family sampling rates used for the five strata are summarized below.

Stratum	Unit size (number of families)	Unit sampling rate	Family sampling rate	Stratum sampling rate
1	700 and more	1	1/12	1/12
2	400-699	1/2	1/6	1/12
3	200-399	1/3	1/4	1/12
4	100-199	1/4	1/3	1/12
5	less than 100	1/6	1/2	1/12

APPENDIX II--QUESTIONNAIRES AND RELATED INFORMATION

INSTRUCTIONS FOR FAMILY RECORD AND AIDE'S LIST OF FAMILIES

INTRODUCTION

The Family Record forms provide a means of recording and maintaining information which is needed to plan, implement and evaluate the Aides' work with individual families in the Program. It shows selected socio-economic characteristics of a family and other information on the family as it enters the Program and at selected intervals as that family continues in the Program.

Information to complete all parts of the Family Record will be obtained by the Aide during her contacts with the family. Since the information required for completing the Family Record is essentially information which the Aide must know to effectively work with a family, she will obtain the information through conversation and observation during her earliest visits with a family. The Family Record forms should not be taken into the home and filled out in the presence of the family if this would likely harm the Aide's relationship with the family. In the event the Family Record forms are not filled out in a family's home, information noted by the Aide should be recorded by the Aide on the appropriate Family Record form immediately after leaving the family's home. Parts 1 and 2 of the Family Record should be completed as soon as possible after the Aide's first contacts with a family.

After the Family Record is filled out by the Aide, it will be reviewed by the Trainer Agent and kept in an individual family file.

FAMILY RECORD--PART 1
DESCRIPTION

This record will be completed by the Aide as soon as possible after a family is visited. Information will be retaken or revised at yearly intervals. (Example--Information in Part 1 obtained for family "A" in February 1969 would be retaken or revised in February 1970.)

Items:

(1) Enter number assigned to family by unit.

a. First and last name of homemaker - person in family having most to do with food preparation.

b,c,d. Family address.

e. Urban--Families living in places with at least 2,500 persons and in closely settled fringe areas surrounding cities of 50,000 or more.
Rural nonfarm--Families living outside urban areas and not operating a farm.
Farm--Families living outside of urban areas and operating a farm.

(2) a. Enter date of first visit to family member at home or in group.

b. Enter date when at least items 1-11 are completed. For reporting purposes a family is considered in the Program as of this date.

(3) Check "Yes" if family is on welfare. Welfare covers various forms of federal and local assistance such as, Old Age Assistance (OAA), AID to Dependent Children (ADC), General Assistance (GA), etc. Normally, Welfare is in the form of cash (check) payments to recipients on a monthly or other regular basis. In some areas, the Welfare assistance is in the form of purchase orders or vouchers to be honored by local store owners as payment for specific products. Receipt of food under the USDA's Donated Foods program or participation in the Food Stamp program is not considered Welfare.

(4) Check "Yes" if family gets some food assistance on a regular basis from other than Food Stamp or Donated Food programs such as, church and community organizations.

(5) Check "Yes" if family gets food from their own garden during gardening season.

(6) List first name of each family member living in household. Use back of record if there are not enough lines for all family members. Show total number of family members in space indicated.

(7) List age of each family member following name. Estimate if necessary.

(8) (9) Check in appropriate column to show sex of each family member. Show total number of males and females.

(10) Check for each family member now in public or private schools up to and including high school. If school is out, check for those that attended during last school year. Show total number attending school.

(11) Check for each family member who ate a school lunch served at school sometime during the previous week. If school is out, check for those that ate a school lunch during the last week of school during last school year. Show total number of family members who had school lunch.

(12) Indicate by number the highest grade in school completed by homemaker (person considered to have the most to do with family food preparation).

(13) (a) Check if family is home owner. (b) Check if family is renter or tenant. (c) If owner, show monthly mortgage payment, if any. If renter or tenant, enter monthly rental payment. If no payments are made, enter "0".

(14) a,b,c,d,e,f,g,h. Check each item that family has. Do not check items c-h if observed not to be in working order. Item e refers to a separate freezer, not to a refrigerator with freezer space.

(15) Check to show where family buys most of its food. A supermarket is a large, full line food store; the small local store is a small neighborhood store or a limited line country store. If there is a question as to whether the store is supermarket or small store, get name of store and check with Trainer Agent.

(16) Check Donated Foods or Food Stamp if that program is operating in the area where family lives.

(17) a,b,c. Check under heading that shows how far store in item 15 is from home.

(17) d,e,f,g. Check under heading that shows how family usually gets to store shown in item 15.

(18) a,b,c. If Donated Food program <u>is</u> operating in area, item 16 a, check under heading that shows distance to Donated Food Center from home.

(18) d,e,f,g. If family is in Donated Food program, check under heading that shows way family usually gets to Donated Food Center.

(19) a,b,c. If Food Stamp program <u>is</u> operating in area, item 16 b, check under heading that shows distance to Food Stamp Issuance Office from home.

(19) d,e,f,g. If family is in Food Stamp program, check under heading that shows way family usually gets to stamp issuance office.

(20) <u>Observe</u> for only homemaker and check. (Spanish-American includes Puerto Rican, Cuban and Mexican American.)

(21) Use best judgement as to how and when to get income information. Ask homemaker or other family member giving income information to choose income range that best reflects the income from all sources for all family members for last calendar year. A card listing the various income ranges (to be provided) may be shown to the person providing income information to make their choice easier. Be sure that types of income listed on Family Record are included in income indicated. If the homemaker cannot estimate total family income for last year, help her by asking what family members earned on a weekly, monthly basis, what income was from welfare, pensions and so on.

(22) Enter name of Aide who takes record.

(23) Enter EMIS-SEMIS State number.

(24) Enter Unit number assigned by State. Not to exceed 3 digits.

(25) Enter number of family record for this family. Initial record will be No. 1, record taken or revised a year later will be No. 2, and so on.

FAMILY RECORD--PART 2
HOMEMAKER FOOD AND FAMILY INCOME AND FOOD EXPENDITURE RECORD

The Aide will obtain the information on food eaten and nutrition knowledge for this record from the person who usually prepares the food for the family, which in most cases will be the homemaker. Information on monthly family income and food expenditures will be obtained from the homemaker or other family members. The Trainer Agent will classify the foods by food groups and enter totals. The initial record is to be filled as soon as possible after the family enters the Program, and before the Aide starts teaching the family. Similar information for the same person in the family (if possible) will be obtained every 6 months.

Program Aide will complete the following items:

Items:

(1) Enter I.D. Number, same as in item 1, Family Record--Part 1.

(2) Enter date record obtained.

(3) Enter the number of Food Record taken for this person. The initial record taken as the family enters the Program is Food Record No. 1. The record taken for the same person and same family 6 months later is No. 2 and so on.

(4) Enter name of homemaker or other person for whom record is taken.

(5) This part of the form is to be used to record the food and drink during the day (24 hours) before the interview.

Ask the homemaker to tell you what she ate during the past 24 hours. Include all food and drink whether it is eaten at home or elsewhere. Start with the meal just before the interview. This is the easiest to remember. If you are getting the record in the afternoon, start with lunch. For example, ask "What did you have to eat and drink at noon today?" Write this down in the space marked noon.

Then ask, "Did you have anything between breakfast and lunch?" Write this in the space for morning. Then find out if she had food or drink between the evening meal and the time she went to bed and what she had for the supper and then the food she ate between lunch and supper.

The purpose of this form is to get the number of times foods from each of the four basic food groups--milk, meat, vegetable/fruit, and bread/cereal--were eaten during the day. ALL FOOD AND DRINK, whether or not it is in one of the four groups, should be recorded. Some information other than that given freely by the person interviewed is needed.

-- For a mixed dish, list the main foods in it as follows:

Sandwich (peanut butter, jelly, bread)
Hash (pork, potatoes, onions)

Do not list foods in mixed dishes if only a little is included for seasoning or thickening, such as onion, salt, flour, fat, sugar.

-- If a mixed dish is one that may have milk in it, ask if milk was used; and list as follows:

Potato soup (milk)
Chocolate pudding (milk)

-- Ask if milk is used with breakfast cereal and list as follows:

Oatmeal (milk)

-- If fruit "juice" is mentioned, question the homemaker to find out whether it is full strength juice or a punch, ade, or drink; and list as follows:

Orange juice (drink)
Orange juice (juice)

-- Allow time for the homemaker to think what she has eaten.

The Aide will only list foods eaten. Trainer Agent will classify foods by food groups and total.

(6) Ask the homemaker to tell you what food and drink she thinks people should have to keep healthy. List these foods as she gives them to you. Trainer Agent will classify foods by food groups.

After taking the first food record, thank the homemaker and explain that you need this so you will be able to be of more help to her. Give her a copy of the Daily Food Guide and tell her you will be talking to her about this in the future visits. The food records will help the Aide to know what instruction on nutrition the homemaker might need.

(7) Ask for an estimate of family income for last month. Be sure that income from all sources such as Social Security, welfare retirement, and insurance payments, gifts, etc. are included along with salaries and wages. If any income is from farming, get an estimate of the amount for last year and divide it by 12 before including it in the family's estimated total income for last month.

(8) Ask for an estimate of amount spent for food last month including both cash and credit purchases. Be sure that the food expenditure does not include the value of food received either as gifts or under a food assistance program. If family is in Food Stamp Program, only the amount paid for food stamps, not the value of stamps received should be included. Include amounts spent for food bought and eaten away from home. Exclude amounts spent for alcoholic beverages, tobacco, paper goods, soaps, pet foods and other nonfood items purchased at the grocery store.

(9) Enter name of Aide who takes record.

(10) Enter EMIS-SEMIS State number.

(11) Enter Unit number assigned by State. Not to exceed 3 digits.

<u>Trainer Agent will complete the following items</u>:

Items (12) to (22) Fill in after food records are obtained by Aides.

Items (12), (13), (14), and (15). The total number of servings of foods from each of the 4 food groups will be determined by the Trainer Agent as follows:

1. For each food mentioned that is in one of the 4 food groups, enter a check (✓) in the appropriate food group column. Listings of commonly used foods in each of the food groups are provided.

   For a mixed dish with a name that clearly indicates that foods from 2 or more food groups are included, place a check (✓) in the column for each group. For example:

	Milk	Meat	Veg./ Fruit	Bread/ Cereal
Macaroni and cheese	✓			✓
Tomato soup (milk)	✓		✓	
Peanut butter sandwich		✓		✓
Stew (meat, potatoes, carrots)		✓	✓	

   No information on the amount of food used was requested. If it is apparent from the record that the amount is very small, do not count as a serving. For example, for "coffee with milk and sugar," do <u>not</u> place a (✓) under milk.

2. Count "✓'s" in each food group column. Enter the total numbers in (12), (13), (14), and (15). If no "✓'s" appear for a group, enter a "0."

(16) Check "Yes" if 1 or a larger number appears as a total for each food group, items 12, 13, 14, 15. Check "No" if "0" appears as total for any group.

(17) Check "Yes" if 2 or larger numbers appear as totals for milk and meat, items 12 and 13; and 4 or larger numbers appear as totals for vegetable/fruit and bread/ cereal, items 14 and 15. Check "No" if less than 2 appear as totals for either milk or meat or less than 4 for either vegetable/fruit or bread/cereal.

Items (18), (19), (20), (21).

1. Place a "✓" in the appropriate food group column to the right of each food the homemaker mentioned as a food or drink she thinks people should have to keep healthy.

2. Enter "1" in (18) if any "✓'s" appear for milk, a "1" in (19 if any "✓'s" appear for meat and so on.

   Enter a "0" in (18), (19), (20), or (21) if no foods from the group were mentioned.

(22) Check "Yes" if "1" appears as a total for each of the food groups, items 18, 19, 20, 21. Check "No" if "0" appears for any one of the food groups.

Food and Nutrition Education Program

LIST OF COMMONLY USED FOODS IN FOUR FOOD GROUPS
(for classifying foods on Homemaker Food Records)

MEAT GROUP

Meat:
- Beef
- Game
- Lamb
- Mutton
- Pork
- Veal

Poultry:
- Chicken
- Duck
- Goose
- Turkey

Fish:
- Fish, all kinds
- Shellfish

Variety meats:
- Brains
- Heart
- Kidney
- Liver
- Tongue
- Sweetbreads

Other:
- Frankfurters
- Luncheon meats
- Sausage
- Mixtures mostly meat, such as meatloaf, meat sauce, etc.

Eggs

Peanut butter

Mature beans and peas, dry (cooked from raw or canned):
- Black beans
- Blackeye peas
- Kidney beans
- Lentils
- Lima beans
- Navy beans
- Soybeans
- Split peas
- Whole peas
- Other dry beans or peas

MILK GROUP

Milk:
- Fluid whole
- Condensed
- Evaporated
- Skim
- Dry
- Buttermilk
- Chocolate

Ice cream

Ice milk

Milk shake

Other:
- Diet beverages (metrecal)
- Yoghurt
- Sour cream
- Mixtures, mostly milk

Cheese:
- American or cheddar
  - Natural
  - Processed
- Cottage
- Cream
- Swiss
- All other types
- Mixtures mostly cheese, such as cheese dip, cheese sauce, cheese spreads

VEGETABLE AND FRUIT GROUP

Vegetables:
- Asparagus
- Artichokes
- Beans, green
- Beans, lima
- Beets
- Broccoli
- Brussels sprouts
- Cabbage
- Carrots
- Cauliflower
- Celery
- Chard
- Collards
- Corn, sweet
- Cress
- Cucumbers
- Dandelion greens
- Green peppers
- Greens, of all kinds
- Kale
- Kohlrabi
- Lettuce
- Mustard greens
- Okra
- Onions
- Parsnips
- Peas
- Potatoes
- Potato chips
- Potato salad
- Potato sticks
- Pumpkin
- Red peppers, sweet
- Radishes
- Rutabagas
- Sauerkraut
- Snap beans
- Spinach, other dark leafy greens
- Summer squash
- Sweetpotatoes
- Tomatoes
- Turnips and turnip greens
- Winter squash
- Soup and mixtures, mostly vegetable
- Vegetable juices

Fruits:

- Apples
- Applesauce
- Apricots
- Avocados
- Bananas
- Berries of all kinds
- Cantaloup
- Cherries
- Cranberries
- Currants
- Dates
- Figs
- Fruit Cocktail
- Grapefruit, grapefruit juice
- Grapes
- Guava
- Lemons
- Limes
- Mango
- Melons
- Oranges, orange juice
- Papaya
- Peaches
- Pears
- Pineapple
- Plums
- Prunes
- Raisins
- Strawberries
- Tangerines, tangerine juice
- Tomatoes, sauce, puree, juice
- Watermelons
- Mixtures, mostly fruit
- Fruit juices (Do not include fruit drinks, ades, and punches)

BREAD AND CEREAL GROUP

- Biscuits
- Bread, all kinds
- Cakes
- Cereals, cooked--barley, bulgar, oats, rice, rye, wheat, grits
- Cereals, ready-to-eat--all types
- Cookies
- Cornbread
- Corn chips
- Cheese curls
- Chow mein noodles
- Cornmeal mush
- Crackers
- Doughnuts
- Fritos
- Macaroni
- Muffins
- Noodles
- Pancakes
- Pastina
- Pies, pastries, tarts
- Pizza
- Popcorn
- Pop tarts
- Pretzels
- Rice
- Rolls, plain and sweet
- Spaghetti
- Tapioca
- Tortillas
- Mixtures, mostly grains

Food and Nutrition Education Program

FAMILY RECORD -- PART 1

DESCRIPTION

(1) Family ID No. _____

(a) Name _____

(b) Street _____

(c) City _____ (d) State _____

(e) ☐ Urban ☐ Rural nonfarm ☐ Farm

(2) (a) Date of first visit: _____

(b) Date record completed: _____

(3) Family on welfare (other than donated foods and food stamps): ☐ Yes ☐ No

(4) Family receiving food assistance on regular basis (other than donated foods and food stamps):

☐ Yes ☐ No

(5) Family gets some food from home garden:

☐ Yes ☐ No

FAMILY MEMBERS (FIRST NAME) (6)	AGE YRS. (7)	SEX		CHECK IF "YES"	
		MALE (8)	FEMALE (9)	NOW IN SCHOOL (10)	HAD SCHOOL LUNCH LAST WEEK (11)
(NO. OF MEMBERS _____) TOTALS					

(12) HIGHEST GRADE IN SCHOOL COMPLETED BY HOMEMAKER: _____

(13) HOME:

(a) ☐ OWNER

(b) ☐ RENTER OR TENANT

(c) MONTHLY PAYMENT

$ _____

(14) INSIDE HOUSE THERE IS:

(a) ☐ ELECTRICITY (e) ☐ FREEZER

(b) ☐ RUNNING WATER (f) ☐ COOK STOVE

(c) ☐ ICE BOX (g) ☐ OVEN

(d) ☐ REFRIGERATOR (h) ☐ HOT PLATE

(15) BUY MOST OF FOOD AT:

(a) ☐ SUPERMARKET

(b) ☐ SMALL LOCAL STORE

(16) USDA PROGRAM IN AREA:

(a) ☐ DONATED FOOD

(b) ☐ FOOD STAMP

FOOD SOURCES	HOW FAR FROM HOME			HOW USUALLY GET THERE			
	LESS THAN 1 MILE (a)	1-5 MILES (b)	MORE THAN 5 MILES (c)	WALK (d)	OWN CAR (e)	BUS OR TAXI (f)	OTHER (g)
(17) STORE (IN 15)							
(18) DONATED FOOD CENTER							
(19) FOOD STAMP ISSUANCE OFFICE							

(20) Check for home maker:

(a) ☐ White *(other than Spanish-American)*

(b) ☐ Negro

(c) ☐ Spanish-American

(d) ☐ Oriental

(e) ☐ Indian

(f) ☐ Other

(21) Income last year for all family members. Include income from all sources, such as:

Wages and salaries

Social Security

Welfare payments

Insurance payments

Veterans benefits

Pensions

Support from others

Income after expenses from business and farming

CHECK ONE:

(a) ☐ Less than $1,000

(b) ☐ $1,000 - 1,999

(c) ☐ $2,000 - 2,999

(d) ☐ $3,000 - 3,999

(e) ☐ $4,000 - 4,999

(f) ☐ $5,000 and over

(22) Aide _____ (23) State No. _____ (24) Unit No. _____
(Name)

(25) Family Record No. _____

(Fill out for each family in unit as soon as possible and yearly thereafter. Keep in family file after review by Trainer-Agent)

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Food and Nutrition Education Program

FAMILY RECORD -- PART 2
HOMEMAKER FOOD AND FAMILY INCOME AND FOOD EXPENDITURE RECORD

(1) Family ID No. _____ (2) Date _____ (3) Food Record No. _____

(4) Record for _____
(name)

(5) What did you eat and drink in the last 24 hours?

To be filled by Aide Kind of food and drink *(Enter main foods in mixed dishes)*	TO BE FILLED BY TRAINER AGENT MILK	MEAT	VEG./ FRUIT	BREAD CEREAL
Morning				
Midmorning				
Noon				
Afternoon				
Evening				
Before Bed				
Total no. of servings:	(12)	(13)	(14)	(15)
Totals at least -- (16)	1	1	1	1
	Yes ☐ No ☐			
Totals at least -- (17)	2	2	4	4
	Yes ☐ No ☐			

(6) What food and drink do you think people should have to keep healthy?

	TO BE FILLED BY TRAINER AGENT			
	MILK	MEAT	VEG./ FRUIT	BREAD CEREAL
Total:	(18)	(19)	(20)	(21)
Totals at least - -	1	1	1	1
(22)	Yes ☐		No ☐	

(7) Total estimated income for family last month: $ _____
(Include wages and salaries, Social Security, welfare and insurance payments, pensions and cash support from others. If family has income from farming, include one-twelfth of last year's income after expenses.)

(8) How much did you spend for food last month, including both cash and credit? _____.
(Do not include value of foods received under Donated Food or other food assistance programs. If in the Food Stamp Program, include only amount spent to purchase food stamps or coupons)

(9) Aide _____ (10) State No. _____ (11) Unit No. _____

(Fill out at earliest visit possible for homemaker in each family and every 6 months after. Keep in family file after review by Trainer Agent.)

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